

THE AFFECTIVE CORRELATES OF
A GOOD MENTORING RELATIONSHIP

By

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A DISSERTATION PRESENTED TO THE GRADUATE SCHOOL
OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

2003

This dissertation is dedicated to Hallie Ward.

UNIVERSITY OF
CALIFORNIA
AT BERKELEY

ACKNOWLEDGMENTS

I would like to express my appreciation to the people in my life that are most responsible for the good things that I am and do (and none of the not-so-good). First, my mother, who (with a little help) started it all and is thus responsible for it all. Second, my wife, Brenda, who has carried far more than her fair share in the past dozen years and who would like to stop now, please. Third, my three daughters (in order of how much work they did on this particular project), Christen, Christy, and Lisa—they are the reason much of anything is worthwhile.

TABLE OF CONTENTS

	<u>Page</u>
ACKNOWLEDGMENTS	iii
ABSTRACT.....	vi
CHAPTER	
1 INTRODUCTION.....	1
Defining Mentoring	5
Brief History of Mentoring	6
Importance of Mentoring	8
Present Study	10
2 REVIEW OF LITERATURE	11
Construction of the Mentoring Relationship.....	14
Functions of the Mentoring Relationship	20
Career and Psychosocial Functions	21
Additional Functions.....	24
Phases of the Mentoring Relationship	25
Phillips' Five-Phase Model	27
Missirian's Three-Phase Model	28
Kram's Four-Phase Model.....	29
Empirical Validity of the Phase Models	30
Outcomes of the Mentoring Relationship	33
Correlation of Functions to Outcomes	34
Self-Efficacy, Productivity, and Success in Graduate School	36
Job Satisfaction, Promotion, and Income	37
Impact of Protégé Characteristics	39
Obstacles to the Mentoring Relationship.....	41
Negative Behaviors	42
Structural, Department Specific, and Relational Obstacles	42
Risks to Mentors	44
Other Factors That Affect the Mentoring Relationship	45
Gender Factors	45
Ethnicity, Sexual Orientation, and Other Cultural Factors	50
Ethical Concerns in the Mentoring Relationship	52
Introduction to the Method	55
Value of Qualitative Research	55
Grounded Theory Methodology	58

3	METHOD.....	65
	Participants.....	65
	The Researcher.....	66
	Procedure	69
	Data Acquisition	69
	Data Analysis	71
4	RESULTS	76
	Feeling Respected	78
	Respect of Persons	79
	Respect of a Person's Right of Self-Determination	81
	Feeling Valued by or Important to the Mentor	83
	Availability	84
	Time and Effort.....	86
	Feeling Safe	88
	Not Experiencing Rejection	89
	Receiving Affirmation and Encouragement	92
	Trust	93
	Feelings of Belonging and Community	95
	Feelings of Increasing Competence	100
	Clarifying Expectations	101
	Following an Appropriate Developmental Course	102
	Increasing Autonomy.....	103
5	DISCUSSION.....	105
	APPENDIXES	
	A INFORMED CONSENT	118
	B MENTOR INTERVIEW SAMPLE	121
	C SATISFIED PROTÉGÉ (SP3) INTERVIEW SAMPLE.....	133
	D DISSATISFIED PROTÉGÉ (DP1) INTERVIEW SAMPLE.....	145
	E EXAMPLE OF OPEN CODING.....	157
	REFERENCES	164
	BIOGRAPHICAL SKETCH.....	172

Abstract of Dissertation Presented to the Graduate School
of the University of Florida in Partial Fulfillment of the
Requirements for the Degree of Doctor of Philosophy

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August, 2003

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This project investigated the affective components that help define a good mentoring relationship. This project was exploratory, not confirmatory; thus, no hypotheses were constructed. While previous research has focused on various components of mentoring, such as functions, phases, establishment, and structures, these factors were not evaluated, as the focus of the project was on the quality of the relationship. Results of this project, however, are consistent with existing research into these areas.

Fourteen participants were interviewed (four award-winning mentors, five satisfied protégés, and four dissatisfied protégés) regarding their experiences as mentors and protégés. Participants were asked to provide their thoughts and perceptions about what things were important in a good mentoring relationship and what might be missing in a bad relationship. Results were analyzed using grounded theory methodology, which is a qualitative method of research and analysis. Analyses indicated that positive affect

was the central factor that differentiated good mentoring relationships from bad mentoring relationships. Positive affect, as a core category, subsumed five second-level categories: (a) feeling respected, (b) feelings of being valued, (c) feeling safe, (d) feelings of belonging, and (e) feelings of making progress. Each of these categories subsumed a number of other themes. Results across all participants were remarkably consistent, lending support to the importance of the interpersonal quality of the mentor-protégé relationship.

CHAPTER 1 INTRODUCTION

If I have seen further it is by standing on the shoulders of Giants.
(Newton, 1676)

This sentiment, in varying forms and words, has historically been proffered by many when asked to account for their successes in work or in life. Indeed, it is asserted that Sir Isaac Newton, who wrote these words in a letter to his colleague Robert Hooke, was himself paraphrasing an idea expressed by Bernard of Chartes in the year 1130 (Herbert, 2003). The insight that we are able to accomplish as much as we do only because we build upon the works of those who have gone before us is both perceptive and judicious, rendering due credit to those upon whose labors we build our own edifices. It is a humbling insight. No matter our view of our own talents and efforts, we are not alone basking in the spotlight of our accomplishments. We are not solely to credit for our discoveries and constructions. Further, we have had an advantage that our precursors did not have: We have access to their work, their wisdom, the edifices that they built upon the shoulders of those who went before—and, in some cases, we have access to them.

This last element—that we often have the advantage of the presence of the persons who have gone before—provides the direction for this research. The purpose of this dissertation is to explore the relationship between mentors and their protégés and to ask what factors are important for the relationship to be characterized as good.

The presence of these persons allows us to learn from them directly: to see them working in the lab, to watch them negotiate a contract with a client in the office, to hear

them present their findings first hand at conferences, and to talk to them about our ideas and our goals. More importantly, their presence may also allow us to develop personal relationships with them. Whether in business, a profession, or in academia, the opportunity to enter into a personal relationship with someone who is more advanced, more knowledgeable, more expert, or of higher status and power can be a boon to the personal and professional development of the novice.

The significance of these relationships has been heard in the words of many: the businessman who spoke with enthusiasm about the female senior executive who showed him the ropes (Hogan, as cited in Murray, 1991), the Nobel prize winner who described the sponsor who saw the potential in him that he never saw in himself (Zuckerman, 1977), the spiritual teacher who eloquently expressed his love for the elder who guided him through crises of faith (Lewis, 1955), the child who eulogized a parent's importance to his peace and place in the world, and the artist who waxed poetic about the one who saw and believed in the talent and passion that others discounted (McMullen, as cited in Murray, 1991). These few examples are noted among an imagined infinitude of people who have recognized the critical contributions of some significant figure to their development, to their success, and to their lives.

The recognition of the value of these significant figures, however, is definitional of graduate education (Kelly & Schweitzer, 1999). Where else are the shoulders of those who have gone before so intentionally made available for those who would follow? Where more than in the graduate academy is the mentoring and advising of students and protégés more central to the success of the endeavor? Although the goal of all education

is the transmission of knowledge, graduate education uniquely assigns the task of preparing the next generation of scholars and researchers to those who themselves developed and use the knowledge. "Generations of experienced scholars have known and acted upon the knowledge that the intellectual development of their graduate students is most effectively guided in one-to-one relationships" (Boyer Commission, 1998, p. I). The intellectual, professional, social, and political development of individual graduate students is the *raison d'être* of the graduate mentor—the *sine qua non* of a doctoral education.

Or is it? According to many sources (e.g., Bowen & Rudenstine, 1992; Lovitts, 2001; Tinto, 1987), the number of students who drop out of doctoral programs in the United States has held steady at approximately 50% since the 1960s. Further, while the specific attrition rates for women and minorities are not known, Lovitts reported it to be considerably higher (see also National Science Foundation, 1997). It is also interesting to note that "in many doctoral programs, roughly half of the students are mentored; in others, the rate is much lower" (Johnson and Huwe, 2003, p. 4). Perhaps the development of graduate students is not the central concern of graduate schools. Perhaps experienced scholars have not known—or not acted upon the knowledge—that students' development is best facilitated in one-on-one relationships.

A variety of reasons may be called up to explain these alarming statistics, and researchers have not been unaware of the problem (Bean & Eaton, 2000; Bowen & Rudenstine, 1992; Braxton, 2000; Tinto, 1987, 2000). Some researchers have focused on the contribution of the individual student's personality and other characteristics to

retention. For example, Tinto (1987) discussed the relations between personal dispositions such as intention and commitment and retention, Bean and Eaton (2000) presented a model that focuses on the interactions between characteristics of the students and the institutional environment in which they must function after arrival, and Green and Bauer (1995) found that certain characteristics of students at entry predicted a significant portion of the variance in outcomes.

Other researchers have explored what happens to students after they arrive. Lovitts (2001) explored a number of reasons why graduate students do not complete their programs and concluded that "it is not the background characteristics students bring to the university that affects their persistence outcomes; it is what happens to them after they arrive" (p. 2). Lovitts reported that a key factor in a students' success is their satisfaction with their advisors/mentors, which predicted not only completion of the doctorate, but also a wide range of other variables. Her discussion of the relative impact of the student's advisor is of particular interest here. In summarizing, she wrote,

In particular, the students felt that their experiences would have been better if they had had more interaction with faculty and/or their advisor and if the faculty or their advisor had been more open, more supporting; given them a little more personal attention; been more sensitive to their interests and career goals; and provided them with appropriate professional socialization experiences. (p. 184)

Clearly, factors related to student success, satisfaction, and retention need further explication. Nevertheless, and in spite of the distressing losses of doctoral students, numerous researchers, theorists, and administrators have explicitly recognized the importance of mentoring in graduate education. The Strategic Planning Committee of a top-10 southeastern university concluded, "no function in the university should receive

more careful attention and support than the processes by which potential graduate students are recruited, admitted, mentored, and placed" (University of Florida, 1997a, p. 21). Cameron and Blackburn (1981) discussed the positive correlations between professional productivity and mentoring (broadly defined). The Council of Graduate Schools (1990) specifically mentioned mentoring when noting that a university has an obligation to provide support services to make academic progress possible. Commenting on mentoring in the context of adult male development, Levinson (1978) added, "Given the value that mentoring has for the mentor, the recipient, and society at large, it is tragic that so little of it actually occurs" (p. 254).

Defining Mentoring

Although mentoring is a term that is frequently and widely used, it remains resistant to clear, concise definition (Gibb, 1999). Many researchers and authors have defined the term in the context of their work, providing additional descriptors and examples that serve to reveal the insufficiency of the operationalization due to the complexity and nuances of the relationship. For example, Johnson (2002) explicitly noted that authors have had difficulty clarifying what is meant by mentoring, and then provided three paragraphs describing his conceptions and use of the term. The present author is, of course, not exempt from this difficulty.

A significant factor in defining the term is that mentoring is not a simple construct. It is not a single role, a single task, nor a single concept. Rather, the mentoring construct describes a juxtaposition of numerous roles, activities, purposes, and meanings. The uniqueness and power of mentoring could not, in any case, be encompassed by a

bare description of functions and outcomes. As the present study is intended to demonstrate, fulfilled functions and positive outcomes do not define the essence of mentoring. Indeed, positive outcomes can be acquired without a mentor. Mentoring is something more—something qualitative, phenomenal, subjective—and as such resists attempts to define it in any categorical way.

Brief History of Mentoring

The term mentor has its origins in Greek mythology. In Homer's *Odyssey*, Mentor was a close friend and wise counselor of Odysseus. Odysseus, who became a hero after his victory at Troy, was unable to return home after the battle, as he was hindered by the goddess, Calypso, who wanted to marry him. Eventually, the other gods took pity on him and sent him homeward. However, Poseidon (whom Odysseus had offended by blinding his son, Cyclopes Polyphemus) again hindered his progress and prevented him from reaching home.

Wisely, before Odysseus had left his home in Ithaca for the battle, he placed Mentor (his friend and advisor) in charge of his estate, his servants, and his young son, Telemakhos. When Telemakhos was older, he thought about his missing father. At the prompting of the goddess Athena, Telemakhos decided to seek out his father and bring him home again. Athena would often appear to Telemakhos in the guise of Mentor, his guardian and surrogate father, to provide advice, guidance, support, and encouragement. Athena also appeared to Odysseus and Telemakhos in various other guises. In each case Athena/Mentor, using her superior (divine) knowledge and power, was able to assist them

in their travels and travails because she saw their needs and intervened with the powers (i.e., the other gods) on their behalf.

Odysseus, in appointing Mentor, was (in part) conforming to a customary practice in ancient Greece, which was to find an older and wiser teacher to be a role model for young men so that they could learn from and emulate their families' cultural values and customs (e.g., Plato and Socrates, Alexander the Great and Aristotle; Murray, 1991). In that both Mentor himself and Athena in the guise of Mentor exemplified the characteristics of advisor, guide, counselor, intervener, and teacher, these older and wiser role models became known as "mentors," and the term mentor became associated with that role.

These same ideas regarding the transmission of knowledge and customs can also be seen in the development of guilds during the Middle Ages. The various professions (e.g., goldsmith, lawyer, merchant) developed an apprenticeship model in which young boys were apprenticed to a master (i.e., someone recognized as expert in the given trade). The boys spent years with their masters, learning their trades and eventually becoming masters themselves by producing a masterpiece.

The master-apprenticeship model was largely replaced by an employer/employee model, but informal mentoring continued to play a central role in history. For example, McMullen (as cited by Murray, 1991) quoted artist Mary Cassatt when she learned of Edgar Degas's interest in becoming her personal mentor:

I accepted with joy. Now I could work with absolute independence without considering the opinion of a jury. I had already recognized who were my true masters. I admired Manet, Courbet, and Degas. I took leave of conventional art. I began to live. (p. 8)

The effects of having a mentor whom the protégé admires and respects are evident and continue to be play a central role in the value of mentoring (e.g., Kram, 1985; Levinson, 1978; Lovitts, 2001; O'Neil & Wrightsman, 2001).

In the last few decades, mentoring has received increasing attention in both business and academia (Hollingsworth & Fassinger, 2002; Murray, 1991; Sands, Parson, & Duane, 1991). Theories have been constructed, models have been developed, and research has been conducted. The potential value to the protégé, the mentor, the institution or business, and society in general has driven an increased focus on how to establish mentoring programs, structure mentoring relationships, and garner the hoped-for benefits. Yet, a significant obstacle persists in the lack of a clear definition of mentoring. Abstract knowledge of the concept remains insufficient for the task, as does the bare description of functions and tasks.

Importance of Mentoring

At a purely practical level, teachers and mentors have always served an acknowledged function as imparters of knowledge and exemplars of the professional role. Knowledge, however, has been expanding at an accelerated rate in recent decades. The increasing breadth and sheer quantity of information drives escalating demands to specialize, and the rising number of highly trained and educated people creates growing competition for limited business and academic positions. Technology is also more diverse and complex, and the skills necessary to master it are correspondingly more intricate or even esoteric. Consequently, the transmission of vital knowledge and skills required for business or academic survival must be both efficient and effective. This does not imply

that mentoring is a new concept or that the efficient transmission of knowledge and expertise is a 21st century imperative. Nevertheless, the levels of current demands have grown such that, without the direct involvement of mentors, the task of survival—much less success—may be nearly insurmountable.

As previously noted, however, the subjective experiences of the people in a mentoring relationship are central, not only to the perceived quality of the relationship, but also to the success of the relationship tasks (Bair, 1999; Lovitts, 2001). In addition to noting the importance of mentoring in a professional context, Levinson (1978) discussed the importance of a mentor to the psychological and emotional development of young men. He stated,

A good mentor is an admixture of a good father and a good friend. . . . A “good enough” mentor is a transitional figure who invites and welcomes a young man into the adult world. He serves as a guide, teacher, and sponsor. He represents skill, knowledge, virtue, accomplishment—the superior qualities a young man hopes someday to acquire. He gives his blessing to the novice and his Dream. And yet, with all this superiority, he conveys the promise that in time they will be peers. The protégé has the hope that soon he will be able to join or even surpass his mentor in the work that they both value. (pp. 333-334)

Although transmission of knowledge and technical expertise, dissemination of cultural sophistication, enlarged networks, and other concrete benefits accrue to those who are mentored, they are not perhaps the most important benefits. Neither are measures of these benefits likely to capture the essence of the mentoring relationship. The present study, therefore, does not focus directly on the practical aspects of mentoring, but rather indirectly on the developmental, subjective, and phenomenological experiences of mentors and protégés.

Present Study

The present study focuses on the subjective experience of participants in mentoring relationships in order to develop an understanding of what qualitative factors contribute to the characterization of a mentoring relationship as good. What does it mean to each person in the dyad that mentoring “works”? In essence, what elements comprise a good mentoring relationship? As in a marriage, something occurs in a positive mentoring relationship that is qualitatively different from a negative or less successful one. These features are of primary interest in the present study and provide reasons for why psychology may be uniquely suited to explore them.

This study is further undertaken in the “context of discovery,” not in the “context of verification” (Giorgi, 1990, 1992). Although the subjective perceptions and experiences of the protégé have been noted as a predictor of positive outcomes (e.g., Lovitts, 2001), little direct research has been done to date on this aspect of the relationship. Given the data indicating the relatively high attrition rates in doctoral education, the importance of mentoring to positive outcomes in doctoral education, and the relatively high rate of dissatisfaction among graduate students in regard to the mentoring they received, additional research on the subjective in the mentoring relationship is essential.

CHAPTER 2 REVIEW OF THE LITERATURE

This chapter provides an overview of the theoretical and empirical literature on mentoring. As previously noted, the topic of mentoring has garnered increasing attention during the last few decades. In a brief search of this body of literature, Fogg (2002) found a significant increase in the number of articles written about mentoring, ranging from 4 papers written from 1960 to 1964 to 721 articles written from 1995 to 1999. Similar results were obtained by this author in a search of the Educational Resources Information Center (ERIC) database. Focusing on mentor in a keyword search of the literature returned only one article published between 1960 and 1965. A subsequent search returned 893 references published between 1996 and 2002.

Other resources also reveal increased interest in the topic of mentors. An internet search using mentoring (instead of mentor in order to eliminate cities and other unrelated references) yielded 1,520,000 hits (Google, 2003). A random search of university websites revealed that mentoring is also a significant interest of educational administrators. Murray (1991) commented that some reference to mentoring could be found in "almost every publication aimed at managers, administrators, educators, human resource professionals. . ." (p. xiii), and Clutterbuck (as cited in Brophy & Epting, 1996) asserted that up to one-third of major companies in Britain have experimented with formal mentoring schemes. Other such examples abound.

This surfeit of material, however, belies the relative tenuousness of the findings in many areas of the mentoring literature (Gelso & Schlosser, 2001; Gibb, 1999; Jacobi, 1991). Although many researchers have invested significant effort into exploring the relationship, their findings tend to be fragmented, and the essential characteristics of the mentor-protégé relationship continue to be elusive as researchers obtain inconsistent results (Chao, 1997). For example, the findings on the effects on personal development and outcomes in cross-gendered mentor-protégé dyads are ambiguous; some authors have found that women may have a more difficult time finding mentors or benefiting from being mentored by men, whereas other researchers conclude that there are no differences in outcomes or quality and effectiveness of the relationship in regard to gender issues. Similar problems beleaguer other areas of mentorship inquiry, such as the research into mentor-protégé dyads comprised of persons from different ethnic backgrounds.

These apparent contradictions in the literature should not be taken to mean there is no concordance between researchers or theorists regarding several important aspects of the mentoring relationship. Some areas of study reveal significant agreement, and some empirically well-supported models have become nearly ubiquitous in their longevity, centrality, and explanatory power. For example, one area of significant agreement among researchers regards the different functions that inhere in the relationship. Generally speaking, most authors agree that the mentoring functions construed as meeting the primary needs of the protégés fall into the two major categories first clearly described in Kathy Kram's (1985) seminal work on mentoring; career functions and psychosocial functions.

As implied by the increasing numbers of researchers, theoreticians, administrators, and business managers interested in clarifying the character and structure of the mentoring relationship—often with the explicit goal of developing effective and efficient mentoring programs in business and academia—mentoring continues to be an important topic as well as an elusive construct. That mentoring is effective seems to be taken for granted; what its effects are, how these effects are achieved, and who benefits from the relationship are still being clarified. Discussing the problem of definition in the context of methodology in mentoring research, Wrightsman (1981) noted that

there is a false sense of consensus, because everyone “knows” what mentoring is. But closer examination indicates wide variation in operational definitions, leading to conclusions that are limited to the use of particular procedures. . . . The result is that the concept is devalued, because everyone is using it loosely, without precision. . . . (pp. 3-4)

Researchers have identified several factors that result in confusion and overlap between projects and conceptualizations (e.g., Chao & Gardner, 1992; Jacobi, 1991; Wrightsman, 1981), including inconsistency in definitions, a lack of consensus regarding structural characteristics of the mentoring relationship, and the diversity of contexts in which mentoring is of importance. In considering these factors for the purposes of the present study, the research in the following categories will be reviewed: (a) construction of the mentoring relationship, (b) functions of the mentoring relationship, (c) phases of the mentoring relationship, (d) outcomes of the mentoring relationship, (e) obstacles to the mentoring relationship, (f) gender, ethnicity, and other cultural factors, and (g) ethical concerns in the mentoring relationship.

Construction of the Mentoring Relationship

Given the potential and anticipated benefits and costs of mentoring to a business or educational institution (not to mention benefits and costs for protégés and mentors themselves), anyone wishing to develop a mentoring program needs accurate information as to how to initiate and structure the relationship within the relevant context. Many organizations and institutions have attempted to implement mentoring programs with which to garner these benefits (Gibb, 1999; Ragins & Cotton, 1999; Scandura, 1998). Typically, these efforts entail the formalization of those factors and processes construed by the program designers to be fundamental to successful mentoring in informal contexts (Chao et al., 1992; Noe, 1988). One of the major demarcations of mentoring and mentoring research is thus between formal and informal mentoring paradigms.

The primary distinction between formal and informal mentoring relationships is in the method by which the relationship is initiated. In an informal mentoring relationship, the protégé and the mentor initiate a relationship based on common interests, usually with the protégé seeking out the mentor. Cronan-Hillix, Gensheimer, Cronan-Hillix, and Davidson (1986) found that more than 80% of surveyed protégés sought out their mentors on the basis of similar interests. An informal mentoring relationship is not managed, structured, or established by an external organization. This relationship is described as spontaneous, natural, or voluntary (Johnson, 2002; Pollock, 1995; Scandura, 1998).

Conversely, in a formal mentoring relationship, the business or institution has taken an active interest in the development of the protégé, usually with specific tasks or

goals in mind (Murray, 1991). According to Gibb (1999), these goals often include better induction and socialization into the field, professional development, improved performance, and development of potential. The organization develops a formal system in which the company assesses its personnel and then determines who will be a mentor and who will be mentored. In a formal mentoring relationship, the roles are more clearly defined and the goals are more explicitly articulated than in an informal relationship, and specific methods of intervention are often prescribed for the mentor.

A number of other factors in both the initiation and dynamics of formal and informal mentoring relationships may influence the character and outcomes of these relationships. Five issues identified in this body of literature will be presented here. First, although the mentor in a formally structured mentoring situation may be construed as suitable for a given protégé by the mentoring coordinator, the protégé may have a different opinion (as may the mentor). This may render the relationship not only ineffective, but also possibly detrimental (Murray, 1991). For example, the protégé may have psychological or career needs that the mentor cannot meet or is not skilled enough to recognize. Second, a protégé may not benefit as much from a formal mentoring relationship if he or she believes that the mentor is investing time and effort only in response to a management directive or because of a commitment to the organization, rather than because of an interest in the protégé or the protégé's work and development (Ragins & Cotton, 1999). Third, formal mentoring schemes are often focused on short-term needs and goals and may not provide enough time for mentors and protégés to reap the benefits of the functions. Kram (1985) and Chao (1997) noted that some functions

(especially career functions) take time to come to fruition and that short-term relationships with mentors may not be sufficient for these to germinate. Fourth, informal mentors may be more concerned with the long-term needs and outcomes of their protégés than their formal counterparts, and may, indeed, protect their protégés at a significant cost to the organization (Ragins & Cotton, 1999). Informal mentors may be more likely to identify personally with their protégés and, likewise, the protégé with the mentor. Since mentors and protégés in informal relationships choose each other, their personal investment in the well being of the other may be greater than that in an assigned (formal) relationship (Johnson, 2000; Zuckerman, 1977). Finally, Ragins and Cotton (1999) argued that since formal mentors are more visible in an organization than informal mentors are, they might be more concerned about avoiding the appearance of favoritism towards their protégés. Contrariwise, informal mentors are expected to show favoritism, to sponsor their protégés, and to buffer them from departmental politics.

Insofar as the informal mentoring relationship is prototypical and, therefore, presumed to be effective and efficient, the formalization of the relationship has received the most attention by researchers. Gibb (1999) noted that "while formal mentoring programs are now very popular, there is not much critical analysis of the reality of their relative successes and failures. . . ." (p. 1057). Some researchers, however, have examined the effectiveness of attempts to replicate the benefits of informal relationships in the creation of formal mentoring programs.

Chao et al. (1992) explored differences in the perceived support functions provided by mentors in formal and informal mentoring relationships. Support functions

were categorized as psychosocial functions or career functions as defined by Kram (1985). Psychosocial functions are defined as those that influenced the protégé's competence, identity, and effectiveness in a professional role, whereas career functions are defined as those that enhanced career advancement. Other outcomes, such as salary and job satisfaction, were also assessed. In a survey of 576 university graduates (212 informally mentored, 53 formally mentored, and 284 non-mentored), protégés who had been informally mentored reported receiving significantly greater career-related support from their mentors than did formally mentored respondents. Interestingly, although informally mentored protégés' scores were slightly higher than formally mentored protégés in the psychosocial functions as well, the differences were not statistically significant (thus, the researchers' hypothesis that informal mentoring relationships would provide a greater number of the psychosocial functions described by Kram was not supported). Additionally, both informally and formally mentored protégés scored higher than non-mentored students did, with informally mentored protégés scoring higher on all measures and formally mentored protégés scoring higher on only 3 of 12 measures.

Fagenson-Eland, Marks, and Amendola (1997) conducted a similar study of 16 informally mentored and 30 formally mentored protégés and obtained different results. Those participants who were informally mentored reported greater psychosocial support than did those who were formally mentored, yet both groups reported similar levels of career-related support.

Ragins and Cotton (1999) noted the methodological difficulties (primarily in instrumentation used) of earlier studies and sought to clarify the discrepancies in the

previous research. These researchers developed an instrument that allowed for separate analysis of Kram's (1985) nine individual functions (five career and four psychosocial) and two additional functions, rather than the superordinate categories of psychosocial and career functions. They also assessed selected outcomes related to formally and informally mentored protégés and non-mentored persons.

Ragins and Cotton (1999) surveyed a sample of 614 engineers, social workers, and journalists (257 men, 352 women, 5 who did not report gender), 510 who had been informally mentored, and 104 who had been formally mentored. These investigators found that informally mentored protégés reported significantly more career function support and more support in four of the six psychosocial domains measured than did protégés in the formally mentored group. Informally mentored protégés also reported greater satisfaction with their mentors and significantly greater job compensation than did those in formal mentoring relationships. Controlling for other factors, post hoc tests with non-mentored respondents revealed that protégés who had been informally mentored reported significantly greater job compensation than employees who had not been mentored, whereas no significant differences were reported in compensation between formally mentored and non-mentored employees. Finally, informally mentored employees received significantly more promotions than did both formally mentored and non-mentored individuals, whereas no significant differences were reported between formally mentored and non-mentored employees in this regard.

The findings of this research (Ragins & Cotton, 1999) support the assertion that informal mentoring is significantly more beneficial than either formal mentoring or no

mentoring. Additionally, they provide some support for the position that formal mentoring schemes are more beneficial than no mentoring at all, and that formal mentoring can provide some of the functions believed to be beneficial in informal mentoring relationships. Ragins and Cotton suggested that the more closely a formal mentoring scheme approximates informal mentoring, the more likely that it will provide the benefits obtained in informal mentoring. They also suggested that formal mentoring be offered as an adjunct to informal mentoring, or perhaps as a preliminary to an informal relationship, stating that "protégés with formal mentors should be encouraged to seek informal mentors while in the last stage of their formal mentoring relationship" (p. 546).

Clark, Harden, and Johnson (2000), taking the other side, asserted more strongly that "the unique quality of the mentor relationship and the long-term nature of relationship formation appear incongruent with third-party assignment" (p. 264). Some researchers (e.g., Clark et al.; Cronan-Hillix et al., 1986; Johnson, 2002; Johnson & Huwe, 2003) have also suggested that externally or structurally imposing the relationship precludes the inscrutable "magic" underlying the affiliation and may render the mentoring relationship merely utilitarian, lacking in passion and emotional investment. These researchers do not, however, equate informal with unplanned. Johnson and his colleagues (Johnson, 2002; Johnson & Huwe, 2003) explored ways to establish individual and organizational conditions that would likely facilitate the initiation and quality of what they refer to as intentional mentoring. These include such activities as preparing mentors and students for their roles, and establishing a departmental culture that recognizes and supports the value of the mentoring process (Cohen, Morgan, DiLillo,

& Flores, 2003; Gerholm, 1990; Lovitts, 2001). Johnson argued especially that the protégé—but also the mentor—must be intentional and proactive in seeking out those with whom they would like to work and those who possess the qualities and resources to meet one's needs (see also Kram, 1985).

As with many aspects of this body of literature, the results need further clarification. A clear limitation, however, is that formal mentoring, at least at its present stage of development, should not be construed as a sufficient substitute for informal mentoring relationships. On the other hand, while few authors would be willing to assert that people can be mentors or learn from mentors merely because they are mandated to by upper management, some will argue that if the conditions are established that facilitate the development of mentoring relationships, then the teaching, learning, and allied tasks and goals are more likely to be accomplished (Kram, 1985; Johnson, 2002; Murray 1991; Ragins & Cotton, 1999).

Functions of the Mentoring Relationship

Levinson (1978) asserted that the central function of a mentoring relationship is the development of the self of the protégé. In describing his research on adult male development, Levinson stated, "The mentor relationship is one of the most complex, and developmentally important, a man can have in early adulthood. . . . No word currently in use is adequate to convey the nature of the relationship we have in mind here" (Levinson, 1978, p. 97). Although a mentor has a number of functions (e.g., sponsoring, guiding, teaching), Levinson asserted that the mentor's primary role is that of a transitional figure between parent and peer—neither one nor the other, but someone who can respond

appropriately to the developmental needs of the protégé. Thus, according to Levinson, not only is the relationship more complex than has been suggested by other researchers (e.g., Murray, 1985), but it also ultimately exists for the developmental benefit of the protégé, whether in the business context or in the educational context.

Kram (1985) defined functions as “those aspects of a relationship that enhance both individuals’ growth and advancement” (p. 22). One notable feature of Kram’s conceptualization is the delineation of both psychosocial functions as well as career functions. Levinson’s (1978) work was in the context of adult development more generally and focused on the psychosocial development of the person. While Kram agreed that the mentoring relationship is a developmental one in which both parties are meeting each other’s developmentally appropriate needs, she discovered that important career functions are also being carried out in the relationship. A second important aspect of Kram’s model is that it takes into account the benefits that accrue to the mentor, as well as to the protégé and the business or institution. Following this lead, researchers have investigated the benefits that accrue to the mentors as well (e.g., Ragins & Scandura, 1999; Wright & Wright, 1987).

Career and Psychosocial Functions

As noted previously, there is substantial agreement among authors regarding the basic functions of the mentoring relationship; however, this was not always the case. In her seminal research on mentoring, Kram (1985) evaluated the previous scattered research and noted meaningful consistencies in the data. She subsequently engaged in a research project in order to clarify the mentoring relationship, and developed a model that

elaborates both the phases in the mentoring relationship as well as the mentoring functions. Her model has provided the foundation and impetus for a great deal of research on mentoring.

Kram's (1985) mentoring functions were derived from a content analysis of interviews with 18 mentor-protégé dyads in a corporate setting. She identified two broad categories of functions: career functions and psychosocial functions. She defined career functions as those functions that contribute to the professional development of the protégé and advancement in the organization. They include sponsorship (the mentor actively advocates for or promotes their protégé in the field), exposure-and-visibility (the mentor provides or creates opportunities for the protégé to demonstrate his or her competence in front of key figures in the organization), coaching (the mentor enhances the protégé's knowledge and understanding about how to navigate effectively the culture and politics in the organization or field), protection (the mentor shields the protégé from potentially damaging errors, interactions, or situations), and challenging assignments (the mentor provides meaningful opportunities for the protégé to develop skills and competencies, and to obtain successes in the professional role). The ability to provide career functions depends on the mentor's experience, rank, and status or influence. If the mentor does not excel on these factors, then his or her ability to effectively provide the career functions is impaired.

Contrariwise, psychosocial functions are based on the interpersonal relationship between the mentor and the protégé and are possible only in the context of mutual trust and increasing intimacy. Kram (1985) defined these functions as "those aspects of a

relationship that enhance an individual's sense of competence, identity, and effectiveness in the professional role" (p. 32). These functions include acceptance-and-confirmation (both individual's derive a positive sense of self, personally and professionally, from the positive regard of the other), counseling (the ability to explore personal concerns that may interfere with the individual's professional development or functioning), friendship (positive social interactions that make the relationship enjoyable), and role modeling (the presentation of positive attitudes, values, and behaviors by the mentor that the protégé identifies with and internalizes, and that pertain to all areas of the relationship ranging from modeling skills to enculturation in the organization or department).

Although Kram's (1985) model is significant in the literature (Chao, 1997; Gilbert & Rossman, 1992; Johnson, 2002; Ragins & Cotton, 1999), it is not the only model available, nor are her nine functions the only ones noted. For example, Scandura (1992) developed a model that consists of the following three categories: vocational, social support, and role modeling. The vocational category correlates with Kram's career functions, whereas the social support and role modeling categories together are similar to Kram's psychosocial functions. Subsequent factor analyses of data by Noe (1998) and Schockett & Haring-Hidore (1985), however, confirmed a two-factor structure: (a) career (Noe, 1988) or vocational (Schockett & Haring-Hidore, 1985) functions, and (b) psychosocial functions. Olian, Carroll, Giannantonio, and Feren (as cited in Jacobi, 1991) conclude that protégés "see two primary dimensions to the benefits obtained from the relationship: job and career benefits through information and external brokering provided

by the mentor, and psychological benefits from the emotional support and friendship obtained within the relationship" (p. 19).

Additional Functions

Researchers have proposed a number of additional functions. Jacobi (1991), in his review of eight theorists, referred to 15 important functions (including Kram's) that have been suggested, adding (for example) advice, clarification, socialization, and training. Cameron and Blackburn (1981) added that mentors are often expected to provide financial support, job placement support, publication support, research collaboration, and more. More informally, this researcher's 30-minute perusal of approximately 20 of journal articles revealed 35 distinct terms describing the functions or roles typically ascribed to the mentor in the mentoring relationship. Pollock (1995) identified 144 terms referring to mentors' behavior in her research. One wonders if true mentors are human (if they exist at all) given the plethora of inspiring roles they must fulfill.

It is also important to note, then, that not all mentors are expected to fulfill all roles or functions. Levinson (1978) wrote,

Mentoring is defined not in terms of the formal roles but in terms of the character of the relationship and the functions that it serves. . . . A student may receive very little mentoring from his teacher/advisor, and very important mentoring from an older friend or relative. We have to examine a relationship closely to discover the amount and kind of mentoring it provides. (p. 98).

The needs of the protégé are often diverse, and many of them are unique to the individual. Likewise, the capacities of mentors vary from mentor to mentor. Protégés and mentors seek each other based largely on common interests, as well as on whether the other has the skills and resources to meet the individual protégé's or mentor's particular

set of needs (Kram, 1985; Levinson, 1978; Lovitts, 2001; Swerdlik & Bardon, 1988; Zuckerman, 1977). The large numbers of roles and functions proposed reflects this diversity and complexity.

A comment needs to be made on the concept of mentoring functions that is relevant to this project. Although in significant agreement regarding the general functions that a mentor fulfills and the factors used to describe them, researchers have been essentially silent on just what a function accomplishes. They have derived lists of functions and behaviors, but have not clarified why, for example, a good mentor's teaching is different from that of any other teacher. Or again, to say that a mentor "provides support" is to say what? To isolate 144 terms regarding mentor behaviors or functions does not adequately clarify what makes mentoring unique, special, or worthy of interest in itself. The current project was undertaken with this lack of clear distinction in mind.

Phases of the Mentoring Relationship

To claim that relationships change is to state the obvious, and the mentoring relationship is no exception to this phenomenon. In the context of his work on adult male development, Levinson (1978) noted the changes over time in the relationship between a young man and his mentor:

In the usual course, a young man initially experiences himself as a novice or apprentice to a more advanced, expert, and authoritative adult. As the relationship evolves, he gains a fuller sense of his own authority and his capability for autonomous, responsible action. The balance of giving/receiving becomes more equal. The younger man increasingly has the experience of "I am" as an adult, and their relationship becomes more mutual. This shift serves a crucial developmental function for the young man: it is part of the process by which he transcends the father-son, man-boy division of his childhood. Although he is officially defined as

an adult at 18 or 21, and desperately wants to be one, it takes many years to overcome the sense of being a son or a boy in relation to "real" adults. (pp. 98-99)

In the above quote, Levinson (1978) was referring to the psychological development and transitions of the male adolescent from early to middle adulthood with the help of a mentor. Substituting the terms "young woman," "employee," or "graduate student" in place of "young man" does not alter the insight. In a relationship with a teacher, advisor, sponsor (i.e., a mentor), the protégé will progress from not only being a novice, but also from feeling like a novice. A corollary to this psychological development is an increased capacity to apprehend and benefit from increasingly important, complex, and subtle aspects of the task at hand, whether in life, work, or education.

Researchers and theorists are not known for their propensity to pass up the opportunity to reduce complex phenomena to a set of superordinate constructs: Erikson's (1980) psychosocial stages, Kohlberg's (1963) stages of moral development, Piaget's stages of cognitive development (Wadsworth, 1989), Helm's (1995) racial identity statuses are examples. Similarly, mentoring, like these other important relationships, has a developmental course that researchers and theorists have characterized by phases. The three predominant models that have received attention in the literature have been proposed by Phillips (1982), Missirian (1982), and Kram (1983, 1985). As discussed by Pollock (1995), isolating phases in relationships requires both descriptions of the features of interest as well as the ability to place these features in a temporal frame to determine if patterns that might represent stages or phases emerge. All three models meet these criteria.

Philips' Five Phase Model

In developing her model, Phillips (1982) interviewed 50 successful women protégées, many of whom had also been mentors. Phillips identified the following five phases that comprise the course of a mentoring relationship: (a) initiation, (b) mutual admiration, (c) development, (d) disillusionment, and (e) parting and transformation.

Initiation refers to the time at the very onset of the relationship in which the mentor and protégé are just meeting and agreeing to work together. Mutual admiration, also referred to as the “sparkle” phase (Missirian, 1982), refers to the fantasies that each party has regarding the other in terms of his or her talents and potential. Development is a longer, two-part phase. Much of the work early in this stage is one-way (i.e., from the mentor to the protégé) as the mentor structures and “kick-starts” the relationship, building the protégé’s confidence and professional competence. Later parts of this stage are more reciprocal, with the protégé beginning to engage with the mentor (Phillips, 1982).

Disillusionment is a phase in which the polish is off the mentor, and the protégé begins to become more autonomous and independent in his or her functioning. Although the mentor continues to meet the protégé’s needs, the urgency and level of doing so decreases, and the protégé begins to separate from the mentor. The final stage of parting and transformation is characterized by a decrease in interactions between the mentor and protégé. The relationship is transformed from a mentor-protégé relationship to a senior-junior colleague or peer relationship (Phillips, 1982). In developing one of the first models (her work was based on her original 1977 dissertation project), Phillips’ model established a framework that subsequent research has tended to support.

Missirian's Three-Phase Model

Missirian (1982) developed another model of the stages of the mentoring relationship based on interviews of 10 female corporate executives. Missirian identified the following three phases in the course of the mentoring relationship: (a) initiation, (b) development, and (c) termination. In this model, initiation is characterized by high expectations on the mentor's part as he or she recognizes the protégé's talents and potential. The mentor provides significant challenges and opportunities as if testing the protégé, even while providing the support, respect, and encouragement necessary for the protégé to succeed.

The development phase, also referred to as "total commitment," is one in which the mentor provides a full range of training, support, modeling, challenge, responsibility, coaching, and other functions. The protégé is learning the tricks of the trade and being socialized into the organization, acquiring the inside knowledge and skills necessary to continue to move up the ladder in skill, position, and status. The protégé is likewise totally committed to the task and to the mentor, and both are becoming fully invested in their career development and professional growth. Mentor demands are seen as opportunities, and challenges are overcome. Later in this stage, the protégé begins to function more independently and creatively (Missirian, 1982).

During the termination phase that naturally follows the development phase, the mentor begins to recommend the protégé for promotions, associates more as a peer (though yet senior), and begins to separate and let go the mentor-protégé relationship. The protégé becomes more fully aware of his or her own strengths and skills, as well as

the limitations of the mentor, and also begins to look towards the next step in career or professional development (Missirian, 1982).

Kram's Four-Phase Model

Kram (1983, 1985) noted that both of these models (Phillips, 1982; Missirian, 1982), although empirically grounded in interviews, are limited in that they were derived from retrospective accounts, taken largely from the perspective of the protégés (Phillips) or the mentors (Missirian) only, and were based on interviews with female managers only. She also noted that although these studies were valuable, they provided no direction in isolating factors that would cause the relationship to transition from one phase to the next (Kram, 1983). To address these difficulties, Kram interviewed 18 pairs of older and younger managers (both men and women) who were currently in a mentoring relationship. Furthermore, these relationships were at different active stages, obviating the need for retrospective accounting.

Kram (1983, 1985) identified the following four phases in the course of the mentoring relationship: (a) initiation, (b) cultivation, (c) separation, and (d) redefinition. Initiation is defined as a period of time (usually 6 months to 1 year) in which the relationship is initiated and progresses from a mere interaction to an important relationship between the two parties. This occurs when hopes for the relationship become concrete expectations within the relationship between the mentor and protégé. Cultivation (2 to 5 years) is a period in which the maximum range of career and psychosocial functions are provided. Both the mentor and the protégé continue to benefit from the alliance, and emotional bonds increase, as do opportunities for meaningful interactions.

The third phase, separation (6 months to 2 years), represents significant emotional and structural changes in the relationship that occur when the protégé wants to become more autonomous and seeks less guidance from the mentor. Redefinition, the final stage of the mentoring relationship, occurs for an indefinite time following the separation phase and is characterized by a complete termination of the relationship or a reconstitution of it in a new form—often as a peer (Kram, 1983, 1985).

Empirical Validity of the Phase Models

Although these characterizations of the phases of mentoring are well supported by the work of the given authors, and are widely referred to in the literature, very little subsequent research has been conducted to determine their empirical validity. Only two articles (Chao, 1997; Pollock, 1995) were found that specifically examined the proposed phases of the mentoring relationship. In an attempt to assess the validity of the three above mentioned relationship phase models of mentoring, Pollock surveyed 138 protégés and 218 non-mentored individuals from a diverse population of middle and upper-level managers in a broad range of industries. Pollock asked respondents to reply to a list of behaviors derived from the literature on mentor behaviors, indicating whether, when, and how often they recollect the behavior occurring on the part of their mentors. These behaviors were to be ascribed to one of three time frames: early, middle, or late parts of the mentoring relationship. These behaviors were then matched to the phase models (Kram, 1983, 1985; Missirian, 1982; Phillips, 1982) to determine which model fit the data most adequately.

In general, Pollock (1995) found that all of the selected mentor functions were provided at all times during the mentoring relationship. While there was some indication that psychosocial functions received more endorsement both early and late in the relationship and that all functions were more frequently experienced in the middle than at the beginning of the relationship, there were no statistically significant differences in any stage between functions received. The implication is that there are, in fact, no phases in which different functions are emphasized or predominant, as was conceptualized by the three models (Kram, 1983, 1985; Missirian, 1982; Phillips, 1982).

The value of Pollock's (1995) study is questionable, however, due to some methodological concerns. First, the data were survey-based and retrospective, rather than interviews and current, which introduces questions as to the reliability and validity of the data. A second critical problem is that Pollock evaluated all three of the phase models and concluded that they could all be accurately condensed to a three-phase model, distinguished by presence, type, and frequency of the mentoring behaviors. This became the model that Pollock used in her research. As a result of this reduction, Pollock's instructions to the respondents required them to situate the recollected behaviors in one of the three predetermined time frames (i.e., early, middle, late) of the mentoring relationship. While it may allow for phases to emerge—assuming there are differences in the frequency or occurrence of the available mentor behaviors—this procedure forces a three-phase paradigm, thus defeating the possibility of finding or confirming a four- or five-stage model (e.g., Kram, 1983; Phillips, 1982). Given these methodological

concerns, it is questionable whether the results of this study can be meaningfully interpreted as appropriate evaluations these three models as intended.

The second project assessing mentoring phases was carried out by Chao (1997), who evaluated only Kram's (1983) model. Chao used descriptions derived from Kram's model to query 192 protégés about their current phase of mentoring relationships. This investigator then obtained data regarding mentor psychosocial and career functions (also derived from Kram, 1983, 1985), as well as other factors such as job satisfaction and income (these other data will be discussed in subsequent sections of this review). Chao found that protégés in the initiation phase reported the lowest levels of mentoring functions (both career and psychosocial) than in any other phase. No other statistically significant differences were found between mentoring phases and mentoring functions. Although predictions were supported regarding the initiation phase as a time in which the relationship is still being established, no other support for phases in the mentoring relationship was found (using mentoring functions as a dependent variable).

Chao's (1997) findings were consistent with those of Pollock (setting aside for the moment questions regarding Pollock's methodology), and bring into question the validity of the phase models as they are presently construed (Kram, 1983; Missirian, 1982; Phillips, 1982). Concerns thus arise regarding other areas of the literature on mentoring subsequent to these ambiguities. For example, Johnson and Huwe (2003) asserted that Kram's model has been empirically validated, citing the Pollock (1995) and Chao (1999) research, and devote a chapter to this model. Additionally, Johnson and Huwe provide no

justification for transferring the phase structure to the graduate school context, which arguably has meaningful differences from the business context in which it was derived.

Categorical reductions such as provided by these phase models may provide access to complex phenomena, facilitate understanding and explanation, and provide a common lexicon that facilitates discussion. It is important, however, that researchers and theorists do not fall into the error of reifying the categories and limiting their research to confirmatory paradigms. As is evidenced by the foregoing, that phases can be delineated and operationalized does not necessarily indicate that there are invariably objective differences between the phases in terms of functions. Kram's well-constructed and empirically grounded four-phase model has provided 20 years of theoretical shorthand and intuitive clarity, but has yet to find definitive empirical support. Fortunately, as noted by Chao (1997), "the maximum level of functions provided to the protégé is more important than temporal fluctuations of these functions as the mentorship evolves" (p.26).

Outcomes of the Mentoring Relationship

Outcomes are, in a word, the reason for mentoring. The benefits that accrue to the mentor or the protégé (or the institution, or society) are what drive the interest in understanding mentoring and trying to implement mentoring programs. For example, Zuckerman (1977) reported some fascinating statistics: 48 of the 92 Nobel Laureates in the United States prior to 1972 had Nobel Laureate mentors. Ten laureates in the United States have mentored 30 Nobel winners. Forty-one percent of all Nobel winners of all nationalities from 1901 to 1972 had at least one laureate mentor. Yet, while it almost invariably assumed that the mentoring relationship leads to positive outcomes, it is

helpful and instructive to validate these assumptions with research. Clear empirical support should help those involved in mentoring or in designing and implementing mentoring programs determine which functions and activities would garner the best possible outcomes.

Although there is a significant body of literature on the outcomes of mentoring, outcomes have typically been associated with independent or predictor variables such as whether or not a person was mentored at all, or whether the protégé was satisfied with the mentoring received, as opposed to specific mentoring functions. In one sense, the relative lack of literature exploring the relationship between specific mentoring functions and concrete outcomes is consistent with the thoughts of some of the more prominent theorists (e.g., Kram, 1985; Levinson, 1978). Relationships are complex and multiply determined, and people, heedless of statistical averages, continue to be unique and idiosyncratic. Kram indicated that mentoring is a developmental relationship and that the tendency to want to view it as an easily created and maintained panacea is simplistic and inaccurate. She asserts that more attention needs to be given to the quality of the relationship, as well as to the characteristics and needs of the individual protégés and mentors. Levinson similarly noted that it is not the functions of the relationship that are critical; rather, it is the quality of the relationship and how well it fulfills the needs of the unique protégé.

Correlation of Functions to Outcomes

Nonetheless, that the relationship between the many functions proposed as definitional of mentoring and specific, concrete outcomes should be empirically explored

seems straightforward. Unfortunately, the literature does not reflect such an exploration. Only one article was found that explored the relationship between specific functions hypothesized to be important and the outcomes that may reasonably be associated with those functions. Cameron and Blackburn's (1981) study of sponsorship explored specific mentoring functions associated with concrete outcomes. In 250 surveys and 25 interviews of active doctoral-level faculty in sociology, psychology, and English departments at nine universities, these investigators asked whether sponsorship (as defined by such functions as financial support, publication support, assistance on first job placement, and collaboration on research projects received while a graduate student) was associated with later rate of publication, grants received, rate of collaboration, and significant involvement in professional associations. Findings provided some support for associations between the assistance received as a graduate student in these areas and the described outcomes.

Although the findings of Cameron and Blackburn's (1981) study provided important (though limited) empirical support for the value of certain specific functions in the long-term outcomes for doctoral students, there are two difficulties. First, while this project explored a function-outcome relationship, the function (sponsorship) was itself broken down into a number of smaller functions. This approach dilutes the clarity of the findings, which is a difficulty reported by the authors when they noted that the independent predicative power of the variables (functions) was reduced when multiple regressions analyses were carried out. Second, there is no mention in the article if the relationships were (or were construed as) mentoring relationships (as opposed to research

assistantships or something else), and thus the applicability to mentoring is at best inferred.

Self-Efficacy, Productivity, and Success in Graduate School

With the aforementioned limitations regarding specificity in the function-outcome research in mind, the research exploring outcomes in relation to mentoring is, in general, predominantly supportive. Hollingsworth and Fassinger (2002) explored the relationship between mentoring and students' research self-efficacy and research productivity among 3rd- and 4th-year doctoral students in psychology. Using a questionnaire based on Kram's (1985) career and psychosocial functions, Hollingsworth and Fassinger found that both research self-efficacy and research productivity of doctoral students increased as a function of the mentoring they received.

A further example of increased productivity was provided by a study of 174 mentored and 54 non-mentored female graduate students conducted by LeCluyse, Tollefson, and Borgers (1985), who found that mentored students engaged in significantly more professional activities than did non-mentored students. Professional activities were defined as publishing an article or chapter, authoring a grant, presenting a paper, conducting a workshop, conducting research, joining a professional organization, attending a national conference, or working as a graduate assistant.

Interviewing and surveying administrators, department chairs, faculty, and students across the country, Lovitts (2001) explored the importance of the advisor-student relationship in graduate education as regards completion of the doctoral program. This researcher defined an advisor as "the person most responsible for guiding you through

your graduate work" (p. 165), a definition not dissimilar to many provided by mentoring researchers. Although not focusing on researcher mentoring, *per se*, Lovitts uncovered a number of factors related to a student's decision to complete graduate school in the context of her work on graduate student attrition. Some of the most significant factors were similar or identical to those identified as functions within the mentoring literature. For example, mentor/advisor functions such as integration/socialization into the professional community, academic interactions, collaboration in research projects, job search assistance, role modeling, and many others were correlated with a student's decision to complete his or her doctoral education, which was Lovitts' primary dependent (criterion) variable. Lovitts also explored outcome variables related to students' activities while still in the academy (e.g., participation in professional and departmental activities), again noting the positive correlations between these activities and students' satisfaction with their advisors.

Job Satisfaction, Promotion, and Income Level

The benefits of mentoring in academia extend beyond the academic setting. Chao (1997) explored the differences in outcomes between 151 mentored and 93 non-mentored employed graduates of a college of engineering. The criterion variables were job satisfaction, career outcomes, organizational socialization (the extent to which protégés believed they had been well socialized into their professional roles), and income. Results showed that protégés garnered significant outcome benefits as compared to their non-mentored peers. These findings were also supported in a similar study by Dreher and Ash (1990). They surveyed 440 graduates of two business schools and found significant

positive correlations between the quantity of mentoring received and rates of promotion, income levels, and satisfaction with pay and benefits.

In another study, Chao et al. (1992) surveyed 576 alumni from two academic institutions and found similar outcomes related to job satisfaction, organizational socialization, and salary among 265 mentored protégés and 284 non-mentored persons. On all outcome measures, mentored individuals reported significantly better outcomes than did non-mentored individuals. Ragins and Cotton (1999) also examined differences in outcomes as a function of whether or not an individual received mentoring. Their survey of 1258 employees in engineering, social work, and journalism (614 mentored in the work place and 548 without mentoring experience at work) revealed that mentored individuals received greater compensation and more promotions than did non-mentored individuals.

Building on the theme of better outcomes for protégés, Fagenson (1988) explored employees' perceptions of the amount of power they have in an organization as a function of whether they were mentored. A survey of 246 individuals working for a large company in the health care industry revealed that those with mentors perceived themselves as having more access to important people, more influence over organizational policy, and a higher level of resource access in the organization than did those without mentors. This effect, though different in absolute terms, was consistent across levels in the organization and across gender. That is, those with mentors reported higher perceptions of power in the organization than those without mentors regardless of gender or level. Although Fagenson noted that no effort was made to determine if this

perceived power was also actual, she held that the benefits could be subsumed under Kram's (1985) proposed career functions.

Impact of Protégé Characteristics

Lest one think that only good things can be said about mentoring, however, there is a qualifier worth noting. Research suggests that the characteristics of protégés before they enter into a mentoring relationship may account for some outcomes that have been attributed to mentoring and, indeed, facilitate entering into such a relationship in the first place. A number of authors have noted the possibility that the student's characteristics may be a more powerful predictor of satisfaction or outcomes than what actually occurs within the relationship (Jacobi, 1991; Johnson & Huwe, 2003; Zuckerman, 1977). However, other investigators (e.g., Lovitts, 2001) are adamant in their belief that "it is not the background characteristics of students. . . it's what happens to them after they arrive" (p. 2) that determines many of the outcomes of interest. If personality characteristics are indeed a critical factor in determining who receives mentoring, however, then much of the mentoring outcome literature is brought into question, as few researchers have attempted to control for protégé characteristics in their study designs.

Turban and Dougherty (1994) examined the potential impact of protégé characteristics on mentoring receptivity and career outcomes. In their survey of 147 graduates from a midwestern university, these researchers discovered that certain personality characteristics (locus of control, self-monitoring, emotional stability) predicted whether or not the student would initiate a mentoring relationship with a faculty member. Subsequent analyses supported additional hypotheses that initiating a mentoring

relationship resulted in receiving more mentoring, and that receiving more mentoring was related to both career attainment and perceived career success. Turban and Dougherty thus concluded that personality characteristics indirectly influence career outcomes by modulating mentoring received.

In a similar vein, Green and Bauer (1995) found no differences in outcomes in terms of publications or submissions for publication after controlling for the incoming potential of a doctoral student sample. In this well-designed study, Green and Bauer explored the relationship among the attitudes, abilities, and commitment of students at entry into the program and two outcome factors: productivity (number of convention papers, journal articles, book chapters, and grants/contracts accepted) and level of mentoring. Support was found for the hypotheses that greater student abilities at entry would predict an increase in mentoring received. Furthermore, the hypothesis that increased mentoring positively contributed to student productivity or commitment to research career was not supported, again controlling for participants' incoming characteristics. These investigators concluded that advisors look for incoming students with high potential and commitment and provide more mentoring for them than for their less capable or less motivated peers. This also raises a question concerning the motivation of mentors who are unable to find the time to help those students who may need it most.

Thus, while some authors attribute student's not receiving mentoring to students' own personality characteristics (e.g., Johnson and Huwe, 2003 cite possible protégé narcissism, arrogance, inappropriate boundaries, or procrastination), others (e.g., Lovitts, 2001) believe that the mentor, being older (usually), wiser (hopefully), of higher status

and power, and being in a position to know the larger picture, inherits a greater responsibility to manage the relationship in a positive way. It seems unlikely that the problems are either simple or categorical. In either case, although graduate schools must recruit highly motivated and competent students, once a student is recruited by the school and accepted by an advisor, the school and the advisor assume an obligation to facilitate the student's development (Council of Graduate Schools, 1990; University of Florida, 1997; University of Kansas, 2003).

In summary, then, the literature generally supports the positive outcomes attributed to mentoring relationships for both the protégé and the mentor. However, there is some reason for hesitation regarding the absolute value of the research until additional work is conducted clarifying the potential confound of student factors at entry. It can safely be inferred that the same considerations apply in a business context as well.

Obstacles to the Relationship

As with the preceding limitations regarding the positive nature of mentoring outcomes, another concern needs to be addressed. Not all mentoring relationships are positive experiences in themselves—for the protégé or the mentor. Research suggests that a significant number of protégés have had bad experiences in mentoring relationships (Eby, MacManus, Simon, & Russell, 2000). A number of authors have explored this issue and have described characteristics of dysfunctional mentoring relationships (Johnson & Huwe, 2003; Kram, 1985; Lovitts, 2001; O'Neil & Wrightsman, 2001; Scandura, 1998; Wright & Wright, 1987).

Negative Behaviors

O'Neil and Wrightsman (2001) identified a number of negative behaviors in which either or both the mentor and the protégé may engage: using threats, being overly authoritarian or submissive, being unavailable, acting sexist, racist, classist, ethnocentric, or homophobic, being intellectually rigid, being unwilling to compromise, encouraging dependence, abusing confidential information, devaluing other students or faculty, playing one-upmanship, and/or comparing other students and faculty. Scandura (1992), in his typology of dysfunctional behaviors, add to this list sabotage, spoiling, deception, and harassment.

Structural, Department Specific, and Relational Obstacles

Johnson and Huwe (2003) divided the major obstacles to mentoring into the following three categories: (a) structural, (b) department specific, and (c) relational. Structural obstacles are products of the system in which they are imbedded (e.g., graduate schools). These obstacles include giving the faculty or managers job credit only for immediate productivity or funded research, or the hiring of part-time employees or student instructors, thereby reducing the pool of available mentors.

The second category of obstacles to mentoring described by Johnson and Huwe is department specific, representing problems in the culture of the particular department. Examples of department specific obstacles are admitting more students than the department can support or graduate (thus setting up competition and an expectation of failure), failing to hire and keep minority or women faculty or managers, and failing to

concretely support mentoring with reduced teaching or productivity requirements or by including successful mentoring in promotion decisions (Johnson & Huwe, 2003).

The third category of obstacles, relational problems, stem from the personality characteristics and behavior patterns of a particular faculty mentor, manager, or protégé, or the interactions of traits in the mentor and the protégé. Scandura (1992), for example, developed a model for conceptualizing factors contributing to possible outcomes of dysfunctional relationships. This model includes both protégé and mentor characteristics (e.g., demographics, personality) as contributing factors, and describes possible negative outcomes to protégés (e.g., low self-esteem, poor job outcomes, stress, leaving), and to mentors (e.g., stress, jealousy, overdependence, betrayal).

Additionally, as previously noted, mentors tend to select and invest in those protégés who are considered most promising and whose interests are most similar to the mentor's interests. Johnson and Huwe (2003) expressed concerns about equal access to mentoring among students who are less exceptional. These authors further noted that discrepant expectations between the mentor and the protégé concerning the character and functions of mentoring could lead to dissatisfaction and dysfunction in the mentoring relationship.

These obstacles to the mentoring relationship, at whatever level, can have a significant impact on the quality of the relationship. For example, mentors who are not given the support they need to fulfill their roles as mentors must often focus their time, energy, and attention on the needs of their "primary" assignments, perhaps sacrificing the needs of the protégé in the process. Protégés whose expectations are rudely disconfirmed,

or whose mentors are more focused on departmental requirements of tenure, may find that having a mentor is not worth the trouble. Often protégés in this situation find themselves getting their needs met elsewhere, and by other people.

Risks to Mentors

Wright and Wright (1987) noted that the mentor also is at risk in the relationship. Taking on a commitment to a protégé is highly demanding of both time and effort and also may cost political capital if the protégé fails to live up to expectations or needs excessive protection from the consequences of mistakes. Often, especially in the so-called hard sciences, the mentor's work and reputation are on the line when a protégé is given responsibility for some critical aspect of the mentor's research. Additionally, the protégé could prove to be unable to develop appropriate autonomy and become unable to carry out tasks without constant supervision or "baby-sitting." On the other hand, the mentor, who hopefully has invested him or herself personally in the protégé, may be rejected by them.

Researchers generally agree that potential problems and obstacles inherent in mentoring relationships include personality, as well as organizational factors. Some authors (e.g., Johnson & Huwe, 2003; Walfish & Hess, 2001) have explored these problems more fully and presented relevant discussion regarding how to negotiate these issues in a mentoring context. Invariably, these authors recommend approaching the selection process and the relationship in an intentional and informed manner, given the enormous time, energy, financial, and emotional investment.

Other Factors That Affect the Mentoring Relationship

Insofar as mentoring may be one of the most important interpersonal relationships ever experienced by students, both personally and professionally (Gilbert & Rossman, 1992; Kram, 1985; Tinto, 1987), understanding the impact of gender, ethnicity, and other cultural factors on the mentoring processes and outcomes also holds significant import (Bogat & Redner, 1985). Since mentoring relationships are often based on perceived similarities between mentor and protégé, cultural differences may inhibit their formation and functioning (Atkinson, Neville, & Casas, 1990; Redmond, 1990). In addition, the lack of same-gender, same-ethnicity, or other identity-affirming role models may create difficulties in identity development as the protégé strives to identify with or internalize a mentor who has limited insight into the protégé's culture or concerns (Bruss & Kopala, 1993; Levinson, 1978).

Gender Factors

The impact of gender on mentoring has received the greatest attention among researchers. The almost ubiquitous inclusion of gender as a demographic variable in research has facilitated this exploration, and provides important information. Gender effects have often been analyzed and noted, even in studies primarily designed to explore other factors.

Another factor that may influence the relative frequency of including the gender variable is the number of women conducting research on mentoring relationships. In fact, many of the foundational and ongoing researchers are women (e.g., Chao, 1997; Fagenson, 1988, 1992; Hite, 1985; Hollingsworth & Fassinger, 2002; Jacobi, 1991;

Kram, 1983; Lovitts, 2001; Missirian, 1982; Murray, 1991; Scandura, 1998; Wilde & Schau, 1991; Zuckerman, 1977). Whatever the reasons for this proportion of female researchers, the insight they provide may be helpful in understanding the issues inherent in the question.

Some areas of concern raised by authors include factors that pertain to non-mentoring relationships as well. For example, in exploring gender differences in relationships with significant power differentials between the individuals involved, Scandura (1992) explored concerns regarding sexual harassment. Female protégés, in particular, may be faced with situations in which the person with the most power over her professional or academic outcomes is a male who adheres to certain stereotypes that entitle him to favors from female underlings. Conversely, a male mentor may, with the best of intentions, be overprotective or excessively forgiving of a female protégée, thus encouraging feelings of dependence or incompetence, and perhaps denying the protégé the opportunity to develop autonomy or independence (Clawson & Kram, 1984; Kram, 1983). Bogat and Redner (1985) discussed reservations on the part of some faculty that women are able to complete graduate school, and some faculty member's perceptions that women were less likely to make significant contributions to their fields than men.

Mixed-gender mentoring dyads also must be aware not only of their own interpersonal behaviors, but also of public perceptions. Rumors may develop based on observed togetherness or friendship behaviors misconstrued as sexual intimacy (Wright & Wright, 1987). Male mentors especially may actually maintain unnecessary distance in an effort to address or preempt these kinds of concerns, thus limiting the protégé's access

to them or depriving the protégé of important social interactions (Clawson & Kram, 1984).

As with any interpersonal relationship, then, many factors may be cause for concern in cross-gendered relationships. These difficulties are often exacerbated by the inclusion of personal characteristics as well as social/cultural perceptions and expectations. It is thus important that mentors and protégés recognize and maintain professional boundaries—neither too rigid nor too permeable—lest the relationship be no longer a positive mentoring experience.

Regarding specific mentoring functions and outcomes, the empirical research into the effects of gender on the mentoring relationship is more ambivalent, with some researchers finding no effect and others finding significant effects. Ragins and Cotton's (1999) study of 352 female and 257 male protégés found that the gender composition of the mentoring dyad affected functions and outcomes. For example, female-female mentor-protégé pairs were more likely to engage in after-work social activities than were female protégés with male mentors. Male protégés with female mentors were less likely to report having received acceptance functions from their mentor than any other gender combinations, and both male and female protégés who have had male mentors received more compensation than did those who have had female mentors. This could be explained by Cameron and Blackburn's (1981) findings that protégés sponsored by men developed significantly larger networking associations than did women.

Further complicating matters, findings concerning gender differences often appear to depend on the outcomes measured. Burke, McKeen, and McKenna's (1990) study of

81 male and 13 female mentors found that female mentors provided both more career and more psychosocial functions than did male mentors, yet there were no differences in outcome measures as a function of gender of mentor or protégé. In a subsequent study of 280 female business graduates, Burke and McKeen (1996) again reported few differences in job satisfaction, career satisfaction, job involvement, or career prospects for female protégés regardless of mentors' gender. Interestingly, although women with female mentors received more psychosocial support than did women with male mentors, these women were more likely to report their intentions to quit the organization. This finding was not explained by the available data.

Among same-sex and cross-sex dyads in a sample of 466 female protégés in business, Gaskill (1991) found differences between male and female mentors in functions performed (female mentors performed more psychosocial functions), relationship initiation (male mentors were more likely to unilaterally initiate a relationship, whereas female mentors were more likely to mutually initiate the relationship), and protégé characteristics. No differences, however, were found in mentor characteristics, benefits derived, problems reported, duration, termination causes, feelings about the relationship, or reported value of the relationship. These findings support the hypothesis that women benefit as much from male mentors as they do from female mentors.

On the other hand, a number of researchers have more consistently found that gender has no impact on mentoring initiation, functions, or outcomes. Wilde and Schau (1991) surveyed 177 graduate students (60% female) and found no differences in psychological and professional mutual support, comprehensiveness, protégé professional

development, and research together as a function of gender of protégé, mentor, or cross-gendered dyads. Furthermore, Fagenson (1988, 1992) found no differences as a function of gender between mentored and non-mentored protégés regarding need for power, autonomy, affiliation, achievement, or perceptions of power in the organization. Surveying 80 female and 80 male executives, Ragins and Scandura (1994) explored anecdotal reports that women were less likely to mentor than were men. Findings revealed that women executives were as likely as men to be mentors, had every intention of mentoring other women, and that women and men reported similar perceptions of the costs and benefits of being mentors.

Turban and Dougherty (1994) also found no differences in their sample of protégés in business (74 men, 73 women) in the probability that they would seek out and develop a mentoring relationship or in the amount of mentoring they received. In their study of 135 female and 59 male 3rd- and 4th-year doctoral students, Hollingsworth and Fassinger (2002) found that student gender did not have an effect on the level of research mentoring received, on student's research self-efficacy, or on research productivity outcomes. Dreher and Ash (1990), studying 147 female and 173 male business school graduates, similarly found no gender differences in the outcomes measures of promotions received, income, or satisfaction with pay and benefits.

Trying to explain the differences in the research on gender in mentoring is, perhaps, an exercise in futility. There are no clearly identifiable methodological problems (e.g., sampling, data acquisition) to which the differences might be attributed. However, three patterns seem to emerge. First, the gender of the protégé and the gender of the

mentor appear to influence some of the processes, yet these influences may be a result of general socialization patterns in society. For example, the increase in psychosocial functions by both female mentors and protégés is consistent with the relational stereotypes associated with women. Second, gender effects on outcomes are minimal and may also be attributable to social or external issues, such as the relatively lower status and power of women (and thus of female mentors and protégés) in academia or industry. Finally, both men and women may nonetheless be equally well served by either male or female mentors.

Ethnicity, Sexual Orientation, and Other Cultural Factors

Regarding the impact of ethnicity, sexual orientation, and other cultural factors in mentoring the literature is significantly smaller and much newer. In some cases, it has little to say at all (Gilbert and Rossman, 1992; Johnson & Huwe, 2003; Wright & Wright, 1987). In a recent book on succeeding in graduate school, a chapter on graduate student couples does not even mention gay or lesbian couples, an increasingly common and public relationship arrangement (Pederson & Daniels, 2001. Issues specific to gay, lesbian, bisexual, transgendered persons (GLBT) are, however, discussed elsewhere in the volume.) In another recent book on mentoring in graduate school (Johnson & Huwe, 2002), no reference to sexual orientation could be found at all, and attraction between mentors and protégés seemed to be of concern only in cross-gendered relationships.

As with any minority culture or group, concerns vary from blatant discrimination to identity development issues. Institutionalized racism continues to have effects on persons of color (Atkinson, Morton, & Sue, 1998), and legal discrimination against

GLBT persons continues in many states (e.g., denying protection against discrimination in housing, education, and jobs. Massey & Walfish, 2001). Handicapped persons, older persons, international students or employees, and other minorities are all at increased risk for experiencing prejudice and discrimination. Finding mentors who are similar or who are informed and openly sympathetic can be extremely comforting to a student or employee as she or he negotiates, not only the academic or employment tasks common to all, but also relevant social and cultural tasks (Hill, Castillo, Ngu, & Pepion, 1999; Lark & Croteau, 1998; Redmond, 1990).

Fortunately, current research suggests that ethnic minorities are receiving mentoring at approximately the same rate as Caucasians (Witt, Smith, & Markham, 2000), and that having an ethnically similar mentor is not related to protégés satisfaction with the mentoring or to the benefits reported by doctoral student or novice professional protégés (Atkinson, Neville, & Casas, 1991). Atkinson et al., noting that minority protégés reported that having a mentor contributed significantly to their academic and career success regardless of the mentor's ethnicity, concluded that European-American professors and senior professionals can successfully serve as mentors to ethnic minority protégés. It should be noted, however, that each individual will have his or her own racial identity developmental status (Helms, 1995), which is likely to influence the importance of the ethnic similarity of the mentor to the student or novice professional.

Only two empirical articles (Lark & Croteau, 1998; Niolon, 1998) were found that focused on GLBT doctoral students' mentoring experiences. Lark and Croteau looked more specifically at the mentoring relationships of 14 GLB counseling psychology

graduate students and found that when their mentor helped them feel safe and affirmed them in their identities, the protégés' had the "energy and freedom" to fully engage the work of graduate school. When they did not have this support, when they did not receive affirmation and did not feel safe, their energies were tied up with emotional survival, and their ability to participate in and gain from the graduate student experience and training was severely compromised. Niolon (1998) interviewed nine gay and lesbian graduate counseling psychology students and found that they did not have what they would refer to as mentoring relationships with faculty, the faculty were not knowledgeable or experienced with GLBT issues or concerns, and that they had numerous stressful experiences and experienced prejudice and discrimination as gay and lesbian students. These students, too, were often expending their energies on emotional survival, instead of on graduate training and professional development.

As is evident, there is much room for additional research on mentoring in diverse populations. In terms of ethnic minorities, the research to date is generally positive, suggesting that minorities are being mentored and that they are satisfied with the mentoring they are receiving. The research regarding GLBT students is not as clear. Additional work clearly needs to be done, not only concerning research on mentoring, but also on the mentoring and acceptance of the GLBT students themselves (Lark & Croteau, 1998; Massey & Walfish, 2001).

Ethical Concerns in the Mentoring Relationship

Mentoring is, almost by definition, a dual role relationship. The existence of multiple overlapping roles in the context of the significant power differentials found in

the typical mentoring relationship is fertile ground for ethical problems. Boundary violations, abuse of authority, sexual harassment, transference issues, stereotypical expectations, and other problems are well suited to such contexts. Some fields specifically address these concerns in ethics codes. For example, the American Psychological Association's ethical guidelines (APA, 2002) specifically prohibits certain multiple role relationships for psychologists, such as sexual or exploitative relationships with students or those over whom psychologist's have evaluative authority, as well as relationships in which there may be a conflict of interest.

In a survey of graduate students in psychology, Clark, et al. (2000) found that 11% of protégés reported ethical concerns about their mentors or mentoring relationships. These problems included mentor's sexual behaviors and attitudes towards the protégé or other students in the program, the mentor publishing altered results, offering the protégé financial incentives to alter results, the mentor having poor boundaries or becoming emotionally dependent on the protégé, and mentors claiming credit for the protégé's work.

Further examples of possible ethical quagmires in mentoring abound (Biaggio, Paget, & Chenworth, 1997; Blevins-Knabe, 1992; Johnson & Huwe 2003; Sumpster & Walfish, 2001). A mentor might employ a protégé on a major grant project, for example, and feel pressured to judge the protégé's work according to the need to finish the project, rather than according to its objective quality. A mentor might characterize a protégé's work and ideas as their own. A mentor and protégé might develop an intimate attraction to each other. After all, many mentoring relationships are based on similarities and shared

interests and often develop into close working relationships. Although protégés often assert that they did not feel coerced during the relationship, in retrospect they may see that they often were, which undermines their assertions that such relationships were consensual (Johnson, 2002). A mentor may "suggest" or "request" favors or behaviors that have little to do with the academic or employment tasks, such as delivering things, or making coffee.

Few would contend that dual relationships are avoidable in the mentoring context, or that such a thing is necessary (Blevins-Knabe, 1992). Unfortunately, protégés are not typically in a position to correct or address ethical concerns. Protégés are not often inclined to accuse—publicly or privately—the person who has the most individual power over their positions or education. Recommendations to talk to the offender are probably more helpful to people who are strong enough in themselves to head off many of these concerns in the first place. Additionally, department officials may choose to ignore complaints of students for political reasons. If a 30-year senior professor or manager denies the validity of a complaint or misrepresents it, no recourse may be available to the protégé.

It is argued that at minimum, mentors and protégés need to be educated in areas of possible ethical concern, and that they clarify at the beginning of their relationships a mutual recognition of the boundaries. Furthermore, mentors must monitor their own behaviors with and attitudes towards protégés and accept responsibility for the power that they have in the relationships (Biaggio et al., 1997). At the departmental level, it is recommended that mentors be monitored for their competence as mentors and that, if

necessary, they receive supplemental training in the nature of the mentoring relationship and in mentoring skills before they are allowed to take on graduate students or novice employees (Johnson & Nelson, 1999).

Introduction to the Method

As was pointed out, an area of research that has received less attention is that of the subjective factors in the mentoring relationship that lead one to characterize it as a good relationship. Researchers have explored phases, functions, outcomes, and diversity issues, not always with clear success, but have not often turned their attentions to the subjective experience of mentoring. While it has been noted that satisfaction with the mentoring relationship is significantly predictive of a number of positive outcomes, from joining department activities to completing the doctoral degree, little has been done to elaborate what subject factors contribute to this satisfaction.

The purpose of this project, then, is to explore the subjective factors in the mentoring relationship. In order to accomplish this task, it will be important to use a qualitative method that will allow the emergence of those factors that are construed as important by the participants in the relationship. The goal is not to describe form or function, but experience.

Value of Qualitative Research

The importance of qualitative research methodology in the understanding of human interactions has been noted by a number of authors (Giorgi, 1990, 1992; Jacobi, 1991; Polkinghorn, 1994). The value of qualitative research is found in its ability to tease out factors that are subtle, idiographic, and often resistant to direct approach. For

example, the affective quality of a relationship may not be amenable to conscious cognitive processing, and thus may be quite difficult to explore using an operationalized survey (i.e., to quantify). And although qualitative research is often construed to be preliminary to a presumably more rigorous quantitative confirmatory methodology, some theorists recognize the intrinsic value of qualitative research methods in some areas of interest (Giorgi, 1990, 1992; Glaser, 1992; Glaser & Strauss, 1967, 1970). As Glaser and Strauss noted, "Qualitative research is often the most 'adequate' and 'efficient' method for obtaining the type of information required. . ." (1970, p. 289).

The value of qualitative research has not been overlooked in the research on mentoring, both in terms of data acquisition as well as in terms of analysis. Interviews and surveys using open-ended questions are common methods of data acquisition, and qualitative analyses such as phenomenological, content, and grounded theory have been used. The grounded theory approach, for example, incorporates both a methodology and a logic that support the value of qualitative research. This approach has been used by a number of researchers in the mentoring literature (Kram, 1985; Lark & Croteau, 1998; Niolon, 1997). Indeed, grounded theory is an excellent method for exploring the nuances and subtleties of the mentoring relationship that are being sought here.

In grounded theory, as with other paradigms, the researcher begins with a question of interest about a particular situation. The goal is to understand what is happening (e.g., what people are doing, why they are doing it). What differentiates grounded theory is that it is exploratory, rather than confirmatory (Giorgi, 1992). That is, it is designed to allow for the relevant factors to emerge from the research situation,

rather than to seek confirmation of a hypothesis that is mapped onto the situation by the investigator. As noted by Corbin and Strauss (1990), "One does not begin with a theory and then prove it. Rather, one begins with an area of study, and what is relevant to that area is allowed to emerge" (p. 23).

Even more salient, grounded theory is concerned with developing "substantive theory" (Glaser & Strauss, 1970), which is "the formulation of concepts and their interrelation into a set of hypotheses for a given substantive area—such as patient care, gang behavior, or education—based on research in that area" (p. 288). Thus, the goal is not merely to understand what is happening, but also to develop a theory within which to situate events.

Focusing on the emergence of substantive theory, grounded research is also differentiated from quantitative methods in how the findings are construed and judged. Dick (2002) noted that the two main criteria for judging the adequacy (vs. validity and reliability) of the results of a grounded theory are fit and pragmatism (i.e., that it works, and it helps people understand the situation better). Grounded theory does not assert that any researcher's conclusions are the only plausible ones, only that if the research is carefully carried out, the findings will be sufficiently credible to most readers, and adequately and accurately represent the area of interest (Glaser & Strauss, 1970). Nor are the categories focused on and elaborated by the researcher the only possible categories of interest in the situation. Other factors may be active and interesting, but not all things can be attended to in any one project (Glaser, 1992).

Grounded Theory Methodology

The grounded theory method is based on a well-developed logic that establishes meaningful guidelines for both data acquisition and data analysis. These guidelines, described by Glaser and Strauss (1967), provide important support for the meaningfulness of the findings and their credibility to the reader. A number of sources can be utilized in data collection, including focus groups, existing literature, naturalistic observation, informal discussion, and interviews. Interactive interviews, typically using open-ended questions and a semi-structured or unstructured format, are common approaches (Dick, 2002). The primary advantage is that themes and insights emerge in dialectic and can be explored *in vivo* if the investigator is inclined. Giorgi (1990) notes that interviews provide important contextual information for the apprehension of the intended meaning of the respondent. Therefore, interviews will be the source of data on the mentoring relationship in the present study.

Although reviewing the literature is a standard process in research and developing the research question, the researcher does not follow this approach in grounded theory. In fact, Glaser (1992) clearly stated, "There is a need not to review any of the literature in the substantive area under study" (p. 31; emphasis added). The purpose of not reviewing the literature is to avoid biasing the researcher by unnecessarily creating *a priori* cognitive structures regarding the area of interest. Similarly, grounded theory recognizes explicitly the subjective factor introduced by the interpretive and inductive nature of the analytic procedure. Although this is one of the great strengths of qualitative research, it also necessarily entails the introduction of an uncontrolled variance in the outcomes (i.e.,

already existing cognitive structures). Unlike phenomenology, which asks researchers to withhold personal perspectives and biases, grounded theory asserts that this is neither necessary, nor likely possible. Grounded theory instead presents a brief description of the researcher—much as a description of any other instrument—so that readers can ascertain for themselves the influence of the researcher on the theory presented. Note that the purpose is not to determine the validity of the findings, *per se*, but their context and credibility.

Insofar as a central feature of grounded theory is the data-driven nature of the methodology, it is difficult to specify exactly the number of participants who will be interviewed. Grounded theory requires that the data sets (indicated in this case as the number of interviews and/or participants) be augmented until the categories are saturated; that is, until no further information is being gleaned from additional data sets (Dick, 2002; Glaser, 1967; Rennie, Phillips, & Quartaro, 1988). In general, the criterion for selection follows two steps. First, there is a focus on discovering the core features of the phenomenon of interest, which is accomplished by interviewing persons who both represent the phenomena and who are similar to each other in some relevant way.

The second step is to introduce variability into the data set in order to sample exceptions to the emerging theoretical hypotheses (theory-based sampling, rather than random sampling) and thus strengthen the generalizability of the emerging theory. This is accomplished by interviewing participants who are somehow dissimilar from the previous participants, or who do not represent the topic in the same way. In analogous quantitative terms, this procedure provides data both within and between.

Having said this, the literature regarding this general type of qualitative research, sparse though it is in this specific topic area, would seem to suggest that about five interviews are preliminarily indicated for a given question, as saturation typically occurs after analyzing 5 to 10 data sets (Glaser & Strauss, 1967; Rennie, Phillips, & Quartaro, 1988). Based upon the foregoing considerations, the present study will include interviews conducted with four to five individuals in each of the following three categories: (a) highly rated faculty mentors, (b) satisfied graduate student protégés, and (c) dissatisfied graduate student protégés.

Analysis in grounded theory methodology is a multi-step process and is highly labor intensive. Analysis begins as soon as the interviews begin and continues throughout the study. As the interviewer begins to interact with the data presented by participants, hypotheses and themes are already being developed and tested. This continues after each interview as the researcher again reviews the data looking for themes and categories. As each interview is conducted, themes from previous interviews are kept in mind, and hypotheses are tested between participants as well as within each interview. This is referred to as constant comparison, and is central to the method. The value of constant comparison is that the perceptions and developing interpretations of the researcher are constantly checked against the data, thus interfering with the development of misconceptions and ungrounded assumptions.

The first step in the formal analysis, open coding, is a process in which each unit of analysis is independently evaluated for possible meanings. What stands for a unit of analysis is flexible, but once defined by the researcher remains consistent throughout

open coding. Glaser and Strauss (1967) recommend that each line of a transcript be considered a unit, whereas Rennie et al. (1988) prefer to delineate the data according to coherent meaning units, an option that will also be used in this project. Each meaning unit is evaluated and categorized or labeled according to the concepts embedded in the data. This process is referred to as open coding because there are a priori neither theoretical nor procedural limits on the categories or meanings that may be established.

To clarify, data is reviewed word-by-word and line-by-line in order to delineate sections that cohere semantically, yet are distinguishable from the surrounding material. Each of these delineated sections (i.e., meaning units) is labeled according to whatever semantic content it was that caused the researcher to be able to isolate the semantic unit (i.e., the concept). At this stage, concept generation is to be descriptive, thus the labels should use language representative of the language used by the interviewees. These concept labels are established as categories, and the meaning units themselves are established as exemplars of the category. Any time a meaning unit is evaluated (in any data set) that can be labeled similarly to an existing category, it will be placed in that category (i.e., be given the same label).

As the open coding process continues, each newly evaluated meaning unit is assigned to as many of the existing categories as possible. If no category exists that represents the meaning embedded in the data, a new category is established. Ultimately, some finite set of categories will emerge that adequately represent the data, and additional meaning units will no longer require the development of new categories or labels, which is a condition known as saturation.

Throughout the data analysis, the researcher's hunches and theoretical notions are recorded separately from the data and from the categorizations, a process referred to as memoing. These memoranda allow the researcher to record for later consideration hypotheses, notions, and ideas that emerge during the analysis, and at the same time are designed to reduce drift away from grounding in the data by making explicit the researcher's perspectives.

Axial coding, the second step of the analysis, is a process in which the developed categories are individually examined in order to more fully elaborate their content and meaning in the researchers mind. At the same time, the contents are compared and evaluated between categories and their exemplars for differences and similarities. The goal is to develop a second level of abstraction that more fully integrates the data, finding connections between categories and concepts. Some of the emergent higher-level categories will be linked to a greater number of subordinate categories and concepts, resulting in a hierarchical integration of the data as more concepts derived directly from the data are subsumed by fewer core categories. Categories that have few or no links are either collapsed into other categories or dropped altogether.

The final step in the analysis, selective coding, occurs when the researcher evaluates the data in search of the most central or core category, one that would subsume all the others in a coherent and parsimonious structure. This would be the category most related to others and is typically very well defined by the structure. Glaser and Strauss (1967, 1978) suggest that once a core category is defined, no further open coding is done for any data not subsumable by the category (thus, selective coding). In essence, although

other data are certainly present and may be of interest, they are distractions from the emerging focus in any given project. Glaser and Strauss (1967) note that the unused data could be used for another paper if desired, thus further representing the focused nature of the method.

In summary, coherent units of meaning within the data are identified and labeled according to the conceptual term by which they were identified. The meaning units and concepts are then evaluated and compared unit with unit and unit with concept to see if more categories emerge. If there are similarities and/or differences among them that lend themselves to a hierarchical ordering, some of the categories will subsume some of the others, and some will be subsumed. This structure, which can be multi-leveled, will be further evaluated to see if there is some category that is sufficiently well distributed and linked so as to represent a core or central category that might subsume all the others. Once the analysis is complete, the researcher should have a well-delineated and strongly empirically grounded model of the phenomenon under investigation. This structure can, if desired, be subjected to a verification process using more traditional experimental methods as it provides the *a priori* structure necessary for deductive hypotheses. Verification, however, is not advocated by grounded theory practitioners and may even diminish the value of the findings through operationalization and reification (Glaser, 1992).

Other researchers have explored the costs and benefits of being a mentor (e.g., Ragins & Scandura, 1999), the contribution of personality factors to the quality and effectiveness of the mentoring relationship (e.g., Turban & Dougherty, 1994), and the

variance introduced into outcomes based on whether the relationship is voluntary or assigned (e.g., Chao, Walz, & Gardner, 1992).

CHAPTER 3 METHOD

Participants

Thirteen individuals were interviewed for this research: four award winning mentors, five satisfied protégés, and four dissatisfied protégés. Three of the mentors were men, and one was a woman. One of the male mentors was a distinguished professor of psychology, one was associate dean of the graduate school and professor of psychology, the third male mentor was a professor of reproductive physiology and biology, and the female mentor was a professor of pharmacology and toxicology. These mentors were solicited at two major universities from among those who had been conferred mentoring awards, as determined by a search of the web sites of the two institutions.

Satisfied protégés were identified by asking the interviewed mentors to provide the names of students they had mentored, or by word of mouth. Two of the satisfied protégés were men, and three were women. One woman was in her final year of seeking her doctorate in clinical psychology. The second woman was 5th-year student seeking a doctorate in pharmacology and toxicology, and the third woman was in her 4th year of work toward doctorate in pharmacology and toxicology. One of the men had completed his doctorate in developmental psychology, and the other man was a 2nd-year student in a doctoral program in clinical psychology.

Dissatisfied protégés were identified by e-mailing graduate student organization leaders and asking for word-of-mouth recommendations of students who were not happy with the mentoring or advising they had received. Two participants were men and two were women. The first woman was seeking a doctorate in ethno-botany, but decided to leave with a master's degree, in part because of the extremely poor support she received. The second woman had intended to work towards a doctoral degree in cultural anthropology, but also was leaving her program due to lack of support. One man had completed his doctorate in child psychology, and another will complete his doctorate in clinical psychology this year.

Each potential participant was contacted by e-mail by the researcher and offered the opportunity to participate in the research. In no case were mentors made aware of which, if any, of their protégés were solicited or interviewed. All participants were fully apprised of the research questions and procedure, and were given the opportunity to decline or withdraw from participation at any time. Informed consent was obtained, and a copy was given to each participant (Appendix A).

The Researcher

An important feature of the grounded theory method is the explicit recognition that the researcher is the primary research instrument and that the personal characteristics and history of the researcher will impact the interpretation of the data and the development of the theory (Glaser & Strauss, 1967; Strauss & Corbin, 1990). It is recommended, therefore, that the researcher provide information regarding his or her own history to facilitate the reader's evaluations of the validity and generalizability of the

findings, which are necessarily shaped by the characteristics of the researcher. This is in contrast to a phenomenological method, in which the researcher attempts to "bracket" or withhold the influence of her or his biases (see Giorgi 1990, 1992).

I am 45-year-old man in a counseling psychology doctoral program. I consider psychology to be my third career. My first career was in the electronics industry, where I spent 15 years as an electronics technician and then as a middle level manager. My second career was as a foster parent. In addition to raising our own three daughters, my wife and I cared for 30 medically and therapeutically needy foster children (mostly infants and young girls) over an 8-year period. These experiences have likely altered my perspectives from what might be expected from someone who had never raised children or from someone who had gone straight through school into their doctoral program.

My status as a doctoral student in psychology not only will affect my thoughts and interpretations, but also in a few cases was noted by the interviewees. As a doctoral student, there was a strong commonality with the protégés, who were going through the same process, and seeking many of the same things in their careers and lives. Some of the interviewees appeared to be influenced by my status as a student in psychology (e.g., the myth that psychologists have some sort of "secret knowledge" about people and behavior seemed to appear with some of the participants). Certainly, being a student of psychology provides me with a framework that will bias my perceptions and interpretations. In that psychology is uniquely suited to explore relationships, however, this bias might better be construed as an advantage rather than as a negative influence.

My age and gender likely also played a role in the interactions with some of the participants, as well as in my self-perceptions and presentations. For example, it was perhaps easier for me to develop rapport with the mentors than a younger interviewer. My life experience also appeared to facilitate the interaction, as topics less focused on mentoring often arose as I worked to develop this rapport. Whether the interviewees were more open with me than they might have been with a younger person is open to question, but seems plausible. My age may have had an influence on the younger protégés that were interviewed, especially as they knew little about me except that I was a graduate student. The international student protégé, a young woman from Thailand, may have been more strongly influenced by her cultural deference to older males in positions of authority (this was briefly discussed in reference to her mentor, who was also an older male).

As a student, I consider that I have been positively mentored by four different people. Each of these has had significantly different styles as well as influences on me, from extensive personal support to technical and research mentoring to a more detached but safe-base style of support. Each was important to my success and survival in their own way. Prior to being a student, during my years in business and as a parent, I was also well mentored. A variety of people fulfilled this role in my life, but none with the focus on the task as I have experienced as a student. I have also been poorly mentored, both as a student and in business, by individuals who appeared to be indifferent to my training, educational, or personal needs, and who might reasonably have been expected to have an obligation to meet those needs. Given these experiences, I was able to draw on personal

experience when interacting with both satisfied and dissatisfied protégés. Having had both experiences, however, may have helped prevent an excessive bias in either direction.

There are other factors not noted here, no doubt some of which I am unaware. The foregoing is provided so that the reader might have some basic information about one of the critical instruments used in this research. As noted by Glaser and Strauss (1967), "The root source of all significant theorizing is the sensitive insights of the observer himself." (p. 251)

Procedure

This section will describe the various aspects of the grounded theory procedures utilized in the present study. It will include discussion of data acquisition and data analysis.

Data Acquisition

Each of the participants was interviewed by the researcher in a private milieu. The focus of the interviews was to learn what factors contribute to the qualification of the mentoring relationship as "good." Although participants were asked to describe or define "good mentoring," the problem of definition discussed earlier was not addressed. If a mentoring relationship was asserted, the assertion was accepted at face value. The question of interest in this project, as noted, was to differentiate a "good" relationship, not, for example, mentored vs. non-mentored, or formal vs. informal mentoring.

The semi-structured interview began with a selection of open-ended questions designed to both create a comfortable atmosphere for the discourse, as well as to facilitate and direct the conversation towards the topic of interest. The questions focused on the

mentoring relationship and process, yet were exploratory and elicitory. Again, neither "mentoring" nor "good" were defined for the participants, who were all able to easily identify someone who was, or should have been, their mentor. The following are some of the questions used to initiate the discussions:

1. How would define good mentoring relationship?
2. What might be some characteristics of a good mentor?
3. What could [the mentor] have done to make it work better for you?
4. What kinds of things made the relationship "work" for you?
5. What are some of the things that make a lousy mentor?

As the interviews proceeded, thoughts and insights occurred to the researcher regarding potential emergent themes in the reports of the participants. Tentative hypotheses were developed, which guided the formulation of additional questions, as attempts were made to confirm or disconfirm these insights. Examples of further enquires, then, followed the following form:

1. How does that make you feel?
2. Is it a part of the mentors job to ...?
3. What do you think that gets you at a psychological level?
4. How does it feel to have a mentor that you believe in that way...?
5. Why is that important to you?

Interviews were continued until both interviewer and interviewee appeared to have exhausted the topic. Interviews typically lasted between 60 and 90 minutes.

Although researchers who specialize in grounded theory methodology recommend against taping or taking notes during an interview (Dick, 2002), taping, note taking, and transcribing were used in the present study to facilitate the development and understanding of the data and to allow the researcher review the data if there were questions or ambiguities in his theory construction. All interviews were thus audio taped. As the researcher became increasing familiar with the material appearing in the interviews, cognizant of the major themes, and aware of the significant consistency of the reports between all of the participants, it was decided that it was unnecessary to additionally transcribe all of the interviews, and the recordings and thematic notes taken during the remaining interviews were relied upon. Thus, eight interviews were transcribed onto hard copy: all four mentors, three satisfied protégés, and one dissatisfied protégé. Partial samples of transcripts are available in the appendices (Appendices B, C, and D).

Data Analysis

Analysis was carried out using the grounded theory procedures described earlier. During each interview, key notes were taken, and developing hypotheses were tested. Following each interview these notes were reevaluated and additional insights were noted. Memoranda were written containing possible categories and other theoretical observations. As each interview was conducted, themes and ideas from previous interviews and analyses were kept in mind and explored using the method of constant comparison.

As noted, in the present study, the interviews with all four mentors (who were interviewed first), the first three satisfied protégés, and one dissatisfied protégé were transcribed to facilitate this process. The interviews were gone over line-by-line and subjected to a formal coding process. The first step, open coding, was conducted by the researcher by going over the transcripts line by line while looking for coherent meaning units; that is, sections that cohere semantically, and yet are distinguishable from the surrounding material. (In later interviews, key notes taken during the interviews and reviewing of the audio tapes replaced full transcription and review.) These “pieces of semantic coherence” can be labeled using a single descriptive word or phrase, which may then be referred to as concepts. Each meaning unit, then, was evaluated and labeled according to the concepts embedded in the data (see Appendix E for an example. Note that there were at least two iterations of open coding when using transcripts, both on the transcript as well as on separate note cards. Thus, the sample in the appendix is reduced and clarified for readability). The concept labels used were chosen not only to reflect the semantic content, but as much as possible the actual words used by the participant.

These concept labels were established as categories, which were a higher level of abstraction of the units themselves, the meaning units being exemplars of the category. Subsequently, any time a meaning unit was evaluated (in any data set) that could be labeled similarly to an existing meaning unit, it was placed in that category (i.e., be given the same concept label). As the open coding process continued, each newly evaluated meaning unit was assigned to as many of the existing categories as possible. If no category existed that represented the meaning embedded in the data, a new category was

established. Ultimately, a finite set of categories emerged that adequately represent the data, and no further open coding was carried out. When this occurs, it is said that the category is saturated, and selective coding begins (see below).

Axial coding, the second step of the analysis, is a process in which the developed concepts are individually examined in order to more fully elaborate their content and meaning in the researchers mind. At the same time, the concepts and their exemplars are compared and evaluated for differences and similarities. The goal is to develop a second or higher level of abstraction that more fully integrates the data, finding connections between categories and concepts.

Axial coding was carried out following the procedure delineated by Rennie and Brewer (1987). All open coding, whether from transcripts or tapes, was carried out using 3 X 5 cards on which the concepts and representative citations from the data (interviews) were written. Over one thousand cards were produced in this project. Axial coding was carried out by placing the cards in columns on a large table according to the meaning or concept represented. Thus, common concepts, or categories, were represented by the different columns of cards. As the concepts and their exemplars were compared and evaluated for differences and similarities, superordinate categories emerged and were developed, and cards labeling these higher-level categories were placed across the top of the table. (Again, the concept of semantic factor analysis was found helpful in conceptualizing the process.) Note that memoranda were also recorded on 3 X 5 cards, but were not included in the sorting process. Memoranda were, however, referred to in the structuring of the data and the development of superordinate categories. Numerous

different organizations of the cards were tried before the one selected was settled on as having the greatest fit and being most representative of the data.

The final step in the analytic process, selective coding, occurs when the researcher evaluates the data in search of the most central or core category, one that would subsume all the others in a coherent and parsimonious structure. This was accomplished using the process described above. As the researcher continued to reexamine the concepts and categories as well as the emergent hierarchical structure, it became possible to recognize a common feature that was linked to all the existing categories, and was also a factor within all of the categories. This factor, positive affect, became the core category of the analysis, and provided the central organizing principle and discovery of this research. Again, as with axial coding, a number of possibilities were considered and discarded before the final selection was confirmed as being most adequate and having the greatest fit with the data.

In summary, the data (transcripts) were broken down into coherent units of meaning, which were labeled roughly according to the concept by which they were identified. Then, these labels and the units they represent were evaluated and compared to see if there were similarities and/or differences among them that lent themselves to a hierarchical ordering, such that some of the categories subsumed some of the others, and some were subsumed. This structure, once derived, was further evaluated to see if there was some category that was sufficiently well distributed and linked so as to represent a core or central category that might subsume all the others. It was found that there was:

positive affect. The core category of positive affect and its subordinate categories will be fully elaborated in the next section.

CHAPTER 4

RESULTS

Four mentors (M), five satisfied protégés (SP), and four dissatisfied protégés (DP), were interviewed for the present study. The purpose of the interviews was to uncover factors that might contribute to the qualification of a mentoring relationship as “good.” Neither the term good nor the term mentoring were defined for the interviewees. All protégé participants were able to identify a person or persons whom they considered as a mentor or, in the case of the DPs, a person whom they expected would mentor them and did not do so satisfactorily. All Ms were identified in advance by virtue of their having received mentoring awards.

The contents of the interviews were analyzed using the previously described grounded theory inductive procedure. All interviews were included in the analysis. There was very high consistency across all participants, including DPs, in terms of those aspects that would qualify as central to the goodness of the relationship. The factors selected for inclusion in this section emerged very early in the interviewing process, continued to appear in virtually every data set, and subsequently represented the central themes derived in the analysis.

As the data were analyzed, a central feature of the defining characteristics of a good mentoring relationship appeared to be the affective nature of the relationship. That is, when discussing what they thought defined a good mentoring relationship, the most frequently reported features were related to participants’ positive feelings about certain

aspects of their relationships. Since good was not defined for the participants, the focus on these specific affective aspects of the relationship, rather than the structure or mechanics of mentoring relationships, was emergent and indicative of the interviewees' own priorities. Thus, the themes that emerged and the resulting categories of the derived structure are subsumed under the core category of Positive Affect.

Participants also discussed a wide variety of other factors. Some of these factors were subsumable into the core or second-level categories. If they were not subsumable and they could not stand alone due to their relative infrequency, then they were dropped from the analysis to limit the focus on a single core category as recommended when using the grounded theory approach (Glaser & Strauss, 1967).

As the core category of the analysis, positive affect defines the features most relevant to the evaluation of the mentoring relationship as "good," as presented by participants. Five second-level categories identified within the core category of positive affect were as follows: (a) feeling respected, (b) feeling valued, (c) feeling safe, (d) feelings of belonging, and (e) feelings of increasing competence (See Table 1). These categories are themselves reductions from third-level categories (i.e., themes) that were derived directly from the data, and each describes areas in which positive affect was highly salient to the participants. Each of these categories and themes will be discussed, describing in detail the feelings themselves, ways the feelings are engendered or hindered in the relationship, and positive correlates of the feelings.

Table 1. Affective Characteristics of a Good Mentoring Relationship

Core Category	Second Level Categories	Fundamental Concepts/ Themes
Positive Affect	Feeling Respected	Respect of person Respect of person's right to self-determination
	Feeling Valued	Availability Time and effort
	Feeling Safe	Not experiencing rejection Receiving affirmation and encouragement. Trust
	Feelings of Belonging and Community	
	Feelings of Increasing Competence	Clarifying expectations Following appropriate developmental course Increasing autonomy

Feeling Respected

The importance of respect (i.e., protégés' feelings of being respected by their mentors) was noted by all three sets of participants. However, Ms and DPs drew attention to it most frequently as of critical importance to a good mentoring relationship. SPs mentioned the importance of feeling respected by their mentors, but much less frequently than did the other two groups. This may be attributed to a slight difference in the salience of certain characteristics to the different groups.

Respect seems to have been construed primarily in one of two ways. First, respect of a person was based on the individual's belief in another's intrinsic worth as a human being. This could be illustrated by the common admonition to treat people with simple

respect and courtesy. This character of respect was also mentioned more frequently by Ms and DPs. A second meaning for respect that appeared to be salient was the respect of a person's freedom and self-determination. This suggests an additional level of respect maintained towards people's right to choose for themselves what they would like to do, accomplish, or become. This concept was discussed by the majority of participants in all three groups, but was most frequently discussed by the mentors.

Respect of Persons

Although all three groups of participants made references to the need for a fundamental respect of the other in the relationship, DPs repeatedly emphasized the lack of basic respect as a centrally important feature in their dissatisfaction with their mentoring relationships. One DP placed basic respect at the top of her list of what she wished she could have received from her mentor. She stated that although mentors expected to be treated with respect, they often did not treat protégés or students with respect. Sometimes this emphasis on the lack of respect became quite emphatic, as illustrated by the following example.

- Interviewer: Why would he introduce you to people and brag about you?
 DP3: Oh, because it reflects on him. That's what a graduate advisor is for, isn't it? "Look, I have this. . .scholar who wants to work with me! I'm a cool person!" And that's fine. I mean I totally understand that they're under a lot of pressure. They have things they need. A grad student is cheap labor for them, who you want to keep working for you as long as you can, because then they leave and you have to train somebody new. I totally understand that it has to be a relationship where they're getting something as well as you getting something. But it has to be somewhat equal. I mean, both people do have to get something out of it. I mean, there are rules in this relationship. . .
- Interviewer: What are the rules?
 DP3: Well, you know, a professor wants to take on a student so that they have glory, and their work getting done, and papers written with their names on it. . .

Protégés noted that when their mentors failed to treat them with respect, they felt disconnected, lost interest in their work, and frequently decided that if respect was not forthcoming, neither would it be given. As can be imagined, this can lead to further difficulties. One protégé stated that she had been “offered assistance to leave the program.” Typically these failures of respect manifested as not acknowledging or attending to a protégé’s conversation; demeaning, condescending, or insulting behaviors or comments; or failing to keep promises.

Satisfied protégés, however, mentioned basic respect only in general terms. Having already received this kind of respect from their mentors as a function of the quality of the relationship, it did not appear to be salient during the interview. Mentors also tended to gloss over this form of respect perhaps because they also considered it to be a given in the relationship. However, all four mentors stated they considered it an honor to have been sought out by students.

The SP who was an international student described differences in cultural norms regarding respect of persons. In her Asian culture, expectations of respect for elders or culturally defined superiors (e.g., men, professors) are much stronger, and one never criticizes or speaks freely with one to whom respect is due. She stated that students are not considered to be equal to their professors. Students neither expect a mentor to stop and talk to them, nor do students feel offended or unimportant when they do not. She recalled being extremely and pleasantly surprised by her American mentor’s openness and willingness to engage with her in conversation at any time. She noted that although she was not equal in status, neither did she feel inferior.

Although the consensus was that protégés a priori deserve respect, all mentors noted its limits. As one mentor in the pharmaceutical field commented, although students deserve respect, there are firm boundaries of acceptable behavior, especially considering the potential health risks inherent in the field. Students are expected to take responsibility for their education seriously and to behave as professionals.

Respect of a Person's Right to Self-Determination

The critical aspect of this theme is that a good mentoring relationship is characterized by the mentor's focus on and commitment to facilitating the goals and plans of the protégé. The emphasis is so asymmetrical in favor of the protégé that it almost reaches the level that the needs and desires of the mentor are of little consequence.

As one mentor noted,

They are really the ones that count in the long run. . . . Yes, my goals will be realized if they do their jobs, but it's more than that in the sense of who they are and where they're going. It's really important.

This focus on supporting the goals of the protégé was universal, and was focused most strongly and repetitively by the mentors. In describing a mentoring relationship, another mentor noted,

First and foremost I think it's a commitment to somebody else's career. So, when somebody comes in and says they'd like to study—I'd like to study with you—and I'm a lucky person in that I have marginal visibility nationally so that people will apply to work with me. I'm lucky. I don't say I deserve that. It's an honor. First, to have that happen. Second, it's a responsibility because to me it implies a ton of obligation that the applicant probably doesn't realize. . . . So, I have to know what they're interested in. I have to know what they want to do. My favorite question to people is "Tell me what your life looks like 5 years from now." Once we know that, then we craft the next 5 years or plan for the next 2 or 3 years to get you there.

Mentors stated their belief that all students are unique and that the central task of a mentor is to uncover the natural talent of the individual student, to nurture their native excellence and passion. Mentors repeatedly noted that it is not their task to determine what a protégé should be doing with her or his life or career; rather the mentor's task is to support the growth and development of the protégé in the direction the protégé has chosen. As M3 indicated, the goal is to develop the students in regard to their own interests and talents, not to "make mini copies of yourself." He continued,

It's a wonderfully freeing, I think, experience [for protégés] to realize that you can pursue that for which you have talent and interest, and can mold a life around it. . . . I once heard that 98% of Americans get up in the morning, go to work and dread that, and I can't imagine that day after day after day. This is why I think some graduate students don't like graduate school. I would wish that 100% of people could follow their own talents and inclinations.

Satisfied protégés also seemed to be most enamored of their mentors' focusing on the protégé's desires and goals. One of M3's protégés, SP1, was also interviewed, and stated that "a mentor is a guide who facilitates your reaching your goals, not you reaching their goals." He said of M3 that whatever area you were interested in as a M3's protégé—academics, practice, research—M3 would "provide you with as many opportunities and as much guidance as you need or want." SP1 noted that he feels empowered and excited by this kind of support because he believes he will be successful in the area he has chosen.

There are limits and qualifications to this support, however, as is indicated in the following exchange with M2.

M2: I've tried to find what they're interested in. And I try to give them that a little bit. . . .

Interviewer: So, it would be kind of like finding out what the individual student's

interests or passions are and then trying to feed that, to facilitate that?

M2: As best I can! Now, I can't just let them totally run my program, but I'm more than willing to. . . I mean, I have enough flexibility in my program that I can try to meet their particular needs, once I'm sure there's a passion for it. . .

M3 concurred, stating, "I just can't supervise any old thing that they come up with. . . ." M1 noted that if he doesn't know the area that a student wants to pursue, or the student declines to take his advice or recommendations, then he can't do all the things that he would normally do for a protégé. The student must then take responsibility to find ways to make up the lack.

Feeling Valued by or Important to the Mentor

Feeling valued by or important to the mentor is closely aligned with respect. However, feeling valued can be distinguished from basic respect in that basic respect is a priori and due all people. Value and importance, on the other hand, refer to the particular person. Although a mentor may fundamentally respect all graduate students, a mentor should hold a special value for his or her protégés. (Should refers not to an ethical imperative, but is an ontological indicative. I.e., a characteristic of a "good" mentoring relationship, as described by participants in this study, is that the mentor does in fact value the protégé).

The salient factor here is that the protégé feels that her or his unique identity is being validated in the relationship with their mentor. The protégé is not merely another unit (interchangeable with any other unit) in a long series of onerous obligations with which a faculty member is tasked by the nature of the job, nor is the protégé merely a means to the mentor's ends; rather the mentor actually has an interest in this particular person. This interest manifests in demonstrable, tangible ways that are observable by the

protégé, and that she or he can internalize as self-worth and value. In this case, the protégé could say, "If this important, high status person thinks I'm important, then maybe I'm okay."

Participants experienced feeling valued by the practical demonstrations of their mentors' (a) availability and (b) time and effort. Through these two modes the protégé became aware of the mentor's feelings about her or him; protégés' also construed these as signals of the positive or negative quality of the relationship and of the self.

Availability

Availability was perhaps the most frequently noted quality in all of the data. Mentors, satisfied protégés, and dissatisfied protégés all indicated that the mentor's availability to protégés is *sine qua non* of good mentoring. Even in discussing relationships that had little or no interpersonal components, availability was considered to be critical. If the mentor was not available, there was, in fact, no mentor.

Availability can be understood in terms of psychological availability or physical availability. While physical availability was mentioned numerous times, it was not typically considered a significant factor in the quality of the relationship. All good mentors were physically available to their protégés at some level—some spent several hours a day with them in various contexts. What was repeatedly noted, however, was the importance of the mentor being psychologically available. That is, graduate students felt valued and important when their mentors responded when they were talked to, when the response was relevant and helpful, when the mentor stopped what they were doing when the protégé wanted to talk to them about a problem (or when there was not a problem),

when the mentor was interested in the protégés concerns or needs, when the mentor was willing to talk on the phone from home with the protégé, or even if the mentor would merely use e-mail to communicate.

In response to the opening question on how he would define good mentoring, SP3 said “. . . to be available is the most basic. To be able to be there, to be willing to be there, to talk about your interests.” M3 noted that one of the central characteristics he respected in other good mentors he knew was “The ability to take time and listen fully to another person’s story.” SP4, the student from Asia, noted that her mentor was always available to her and that it made her feel important and valued. She further noted that her peers with less available and open mentors were not happy, and did not feel very important to their mentors. SP5 relayed a story that exemplifies availability and its effect on the protégé.

. . . He was one of the people on the committee for my paper. He was actually—this is kinda cool—he was actually on vacation in January when I emailed him and told him “Here’s where I am, here’s my outline. I’ve kind of revised it from what we talked about last time.” He emailed me back and said, “Actually, we’re on vacation. We’re in Minnesota.” He told me a little bit about the weather; it was freezing, they were fortunate enough to arrive in the middle of a snowstorm, da da da da da. . . and, [he continued] “You know, I like what you’re doing here. Our host actually happens to know something about the subject, and he suggests that you check out such and such. . . .” I get this back—the guy’s on vacation. . . and he’s talking about my project to his friend. . . and giving me feedback while he’s on vacation! I’m like, do I feel important? Do I feel valued? Well, yeah!

Dissatisfied protégés also had much to say about availability, or, in their case, their mentor’s unavailability. DP2 noted that she is on her second mentor/advisor; unfortunately, the second, like the first, is not available either—physically or psychologically. In fact, noted DP2, students have to sign up on a sheet on this

“mentor’s” door to get an appointment—she dispenses her time in 15-minute increments—whether they are an undergrad student or one of her grad students. DP2 commented that “there needs to be someone you can know that is going to answer back, or you can touch base with, who can give you some direction, that you can talk to. . . .” She continued that the thing that both her mentors could have done was to simply be available. DP3 indicated that if she had a question about requirements, about classes, about where to find the bathroom, her mentor would tell her to go ask another grad student. According to DP3, her mentor also waxed philosophical in her presence about whether he should be hiring technicians rather than grad students, since technicians didn’t want other things in addition to the job.

Time and Effort

Availability is a fairly passive concept, in that the mentor is being responsive to the immediate needs of the protégé. The character of time and effort as a marker of value and importance is found in a mentor’s activity or proactivity on the protégé’s behalf. The mentor demonstrates her or his valuation of the protégé by the concrete investment of limited time and energy resources to the development and progress of the protégé towards her or his goals. An important aspect of this factor is that the mentoring relationship is not defined in terms of supply and demand; although there are lots of grad students out there, there is only one “in front of you.” The protégé’s value to their mentor is apparent to all, especially the protégé, in the mentor’s investment of time and energy. This valuation will also be internalized and considered by the protégé in their valuation of themselves.

The investment of time and effort was spoken of by the mentors mostly in terms of the necessity of recognizing the level of commitment in these areas that is inherent in deciding to take on grad students or protégés. All of the mentors noted this aspect of the relationship, and expressed not only willingness, but also enthusiasm. M1 noted that he felt that if students were going to come work with him, that he owed them his time and effort and attention, and that he was happy to provide it. M1's protégé, SP3, said

... The fact that M1 would be willing to pass back and forth the draft three times, was something that, as I've talked with other people, they didn't have that, and that goes back to the first thing, about being there and to be willing to give time for you.

When asked for his definition of a good mentor, M2 said that a good mentor was a person that's going to take the time to spend with students on a daily basis and try to develop them to their maximum potential. . . and it takes a lot of time." Later in our interview, in the context of a discussion of how many grad students some mentors take on, he said,

I have other colleagues that take ten or twelve students at a time, and I just can't do that. So I've asked myself, 'what is it that precludes me from doing that?' And I've come to the conclusion that I spend a lot more time with individual students, mentoring them. . . I put enough priority on trying to mentor and develop individuals that I can only do so many at a time. . .

The other mentors reiterated this sentiment.

A partial list of other demonstrations of time and effort commitment by mentors for their protégés reported by participants include writing a six or seven-page, single spaced recommendation letters "in which I really tell a heartfelt story about that student" (M3); paying for the protégé's attendance at conferences, and not only helping them set up their presentations, but staying with them during the entire display time, and

introducing them to important people that come by; going to the lab every day and seeking them out to see how they're doing; finishing necessary paperwork on time; always knowing what the protégé is doing, and making sure that the protégé is on time and on track regarding department and degree requirements; helping them negotiate personal concerns, such as balancing work and family, so that they can remain in the program and focused on their work; reading materials provided by the protégé in the protégé's area in order to keep up with the research in that area; and calling people to promote the protégé for a position.

As might be imagined, the conversations of the dissatisfied protégés were much briefer in this regard. Except to note that their mentors either invested no time or effort, or that they only invested in those areas that were of personal interest, there was little to say. DP1 noted that "when I was doing things that were not only getting me through the program, but were also gonna help him out with his. . . in his professional life. . . ." he got better treatment from his mentor. He described his personal relationship with his mentor as "sterile" and leaving him with "an empty feeling." Ultimately, like other DPs, DP1 would take his work elsewhere; "I wouldn't even show it to him."

Feeling Safe

The importance of feeling safe was especially emphasized by the SPs. Mentors and DPs also discussed the importance of the protégé's feelings in this regard, but DPs tended to withdraw from their mentors as soon as it became apparent that they weren't safe and, as usual, the issue became one of deficiency.

In the conversations of the participants, feelings of safety seem to be related to three primary themes: not experiencing rejection, receiving affirmation and encouragement, and trust. These three things, when present and experienced by the protégé, establish a secure base from which they can function and develop. It is worth noting that the concept of a secure base is derived from theories relating to attachments between parents and their children. The participants in this study used the parent-child metaphor frequently to express the feeling they had towards each other. In fact, all the mentors and most of the SPs did so, but none of the dissatisfied protégés did.

For example, in response to the question "Do you like the idea of showing M1 that you did it, that you wanted him to be proud?" SP3, who was particularly enamored of the parenting metaphor, said

Yes. Yes. Yes. Yes. I definitely have that second father figure feeling about it, and it is equally as devastating when he'd you look at the first draft and really say, 'no, this is really bad, this is really not it.' It was equally as devastating. I think I definitely have that same kind of sense of. . . if he was saying "good job," then I was feeling that I was good, and I was happy with the approval, and if he was saying "no way. . ." that was a bad couple of days. . .

When discussing how having a protégé was like having kids, M1 said, "It's the same way. It's the same thing." Similarly, M4 said

If you take on a student, you know you're really taking on some responsibility for them, just like what we have for a child; you're responsible for them. It's not quite the same level of responsibility, but they are somewhat dependent on you in a variety of ways. . . just as much as your kids are for the skills they'll need to survive in the world whatever they do.

Not experiencing rejection

Of the three themes that are subsumed under feelings of safety (not experiencing rejection, receiving affirmation, and trust in the mentor), not experiencing rejection was

clearly the most important to the protégés, both emotionally and in terms of personal and professional development. While this theme is defined negatively, as the absence of a behavior, it remains significant in that rejection is a positive punishment. That is, if it is experienced at all, the offended party often tends to withdraw, and the possibility of a corrective or ameliorating positive interaction with the mentor is significantly reduced, if not eliminated. This reduction is due not only to the reduced numbers of interactions, as the protégé tries to avoid a repeat of the aversive event, but also to the negatively biased interpretations of any further mentor behaviors by the protégé. For example, what is meant as a helpful critique may be taken as a direct assault by a previously sensitized protégé. As a result, even a small amount of this negative behavior may preclude to possibility of developing a positive mentoring relationship.

Examples of mentor behaviors that were experienced as rejecting or threatening include demeaning a protégés' efforts, implying the protégé is stupid or is asking stupid questions, yelling or screaming at the protégé, blaming the protégé for errors, for poor outcomes, or for not knowing what to do, taking out frustrations on the protégé related to other situations in the mentor's life, embarrassing a protégé in front of others, shaming a protégé, taking a concern a protégé brings and making it about themselves (e.g., a protégé presents something that she wanted help with, and the mentor tells a story about something that happened to him, showing that he has 'suffered,' too, yet without addressing the protégé's concerns), behaving condescendingly towards the protégé, and others. Both SPs and DPs recognized the necessity of mentors' correcting them and

showing them their errors (see below), but all participants seemed to recognize the difference between rejection and critique.

The most significant consequents to these rejecting behaviors were that the protégé withdrew from interactions with the mentor, developed questions about their own competence and value and career choice, and became afraid to engage in the necessary work for fear of being “slapped down,” as one mentor put it. SP2, who was actually the SP of one of the award-winning mentors (M3), noted that if a protégé became defensive at M3’s strong critiques, M3 would “hammer” them, but if you accepted the critique and asked for help, M3 would “take you under his wing.” (This was definitely experienced as rejecting and threatening, but was later resolved when the protégé went to M3 and confronted him. According to the protégé, M3 has been working on that quirk since that confrontation, and they now get along extremely well).

Many participants noted the absence of rejection and its correlates. The most noted benefit is that protégés feel safe to take risks, not only in terms of talking to their mentors about problems and mistakes, but also in terms of being willing and emotionally able to explore and experiment with their work or research. For example, when asked what her mentor did when SP2 made a mistake, she said,

SP2: Oh, it was fine. I mean, she [M4] understands that you, of course, this is a training period, even now. I’ve made mistakes. . . but she doesn’t go ‘rooting’ for it, she’s really relaxed about it.

Interviewer: what does that get for you? When you’re in a situation, and you make a mistake, and she’s OK with it. . .

SP2: Well, I mean, it makes me more willing to admit that I made a mistake, and also, it’s not so much pressure. I know some mentors who are a lot more rigid about that, and they do expect you to know, every time, exactly everything that needs to be done. And you know, you’re going to have people in the lab who are going to be scared when you do that. I think it makes it easier for me to just go

ahead and do something, than to worry about it, if everything isn't exactly right. I do make an effort to include everything I understand, based on my own knowledge, to do everything correctly, but if it's not correct I don't feel like I have to fear anything.

Receiving Affirmation and Encouragement

Receiving affirmation and encouragement from a mentor is essentially the opposite of experiencing rejection—not opposite in the sense of the absence of one implies the presence of the other, but in the sense that while rejection actively hinders work and development, affirmation and encouragement promotes it. Of the three themes under the category of feeling safe, this was mentioned directly the least but nonetheless appeared in my coding quite often. It was my impression that there was what might be termed an affirming atmosphere between the mentors and protégés, as evidenced by the tone and affect of the participants during the interviews.

When affirmation was mentioned directly, however, its impact was important. SP3 said, "I always knew I had good stuff, I had a good story to tell. What I also knew was that I wasn't always the best at telling it. . . . I always felt motivated, because M1 was very reinforcing, [saying]; 'you've got a good thing here to talk about. . . yeah, you're right, this is important, this is good stuff.'" SP5 noted that her mentor was always very affirming of her work, even when suggesting better ways to do it or other options to try. She said that she was never made to feel stupid or small. She continued in another section

For the most part, they offered stuff [support and encouragement] so freely it was more a matter of "I know where I can get this." I didn't have to earn it; it would be there no matter what I did. . . . It was extremely validating.

Mentors also noted the importance of providing affirmation and encouragement to protégés. M4 discussed how encouragement softened the blows of failures and mistakes, and cultivated the ability to keep “plugging;” M3 commented, “I’m constantly encouraging them. . . to stretch, to try new things, to try ideas, to make mistakes, even.”

The lack of affirmation and encouragement can result in protégés going elsewhere for their needs, as was noted by DP1, who said (as if he were talking to his mentor), “[if] I’m not going to get the feedback and encouragement from you, I’ll go to one of these other people. . . .” Regarding his mentor’s lack of emotional support, when asked what would happen to a younger protégé who came and worked with this mentor (DP1 was 32, and had good support at home), he said, “Well, I’ve seen a lot of them, and. . . I’m the second person who has made it out through him with a PhD.”

DP3 commented that instead of commending her for what she had done, her mentor would complain about what she hadn’t done. DP2 similarly described how her mentor would tell her to do something (without providing any clear direction), and when she’d bring the work back to him, he would say, “Why didn’t you do ‘X’.” She argued that this lack of support or affirmation of her work made her not want to do any work at all, or to ever work with him.

Trust

There are various ways to construe trust, some of which have likely been implicit in previous sections, and others that were not discussed by participants and thus are not presented here regardless of their assumed or likely relevance. In fact, trust was mentioned by various participants numerous time in diverse contexts, but as a word

which tends to be used to cover a plethora of ideas, it was necessary for there to be a clear and repeated usage for it to be construed as a theme for our purposes.

The particular conception of trust that was of concern to participants incorporated the main theme of honest feedback. The feeling that their mentors would provide honest feedback, and in fact were providing it, was of significant importance to protégés in that this enabled them to know where they stood in terms of where they stood with their mentors, as well as regarding their choice of profession and their ability to perform in that profession. SP3 noted that even when it was unpleasant, honest feedback was indicative of a functional relationship, rather than that was a problem with him as a person. SP2 stated that she looks to her mentor to provide honest feedback as to the quality of her research.

SP2: I trust her to point out things that I'm doing that might not be correct, or that some other set of experiments are better. But also, I feel comfortable asking questions; I don't feel like I'm going to be belittled for. . .

Interviewer: So you feel confident that she's not going to avoid telling you when you're screwing up.

SP2: Oh, absolutely. She does it in a way that doesn't make you feel bad, so that's really nice. You know, you don't feel like "Oh, I've just messed up completely and ruined everything. . .

Interviewer: So you trust her to be honest with you.

SP2: Oh, absolutely. I mean, that's really important. . . .

One important aspect of honesty was described by two of the DPs. Both DP2 and DP3 described how they had, prior to registering in their programs, discussed with their mentors what they would be working on, but that after they arrived they found that the mentors either gave them another task (DP3), or decided not to work with them (DP2). In fact, DP3 stated that she was actively recruited by her mentor, and after she arrived found that he would not support her graduate work at all. This lack of integrity was instrumental

on the part of both of these students to decide to not complete their PhD, and to leave their programs with master's degrees.

Ms also noted the importance of providing honest feedback to students about their work and progress, and indeed whether they had selected the right field. M1 noted that his students always know where they stand with him. In response to a question as to what drew students to him, M3 responded:

M3: Trust. I think that if you don't have trust you don't go anywhere. . . . They need to trust our relationship and know that what I will do and say is for their benefit. They need to trust that I'm not just a pretty boy that will just give them positive feedback all the time – I will give them feedback when I think they're not being honest with themselves, and when they're misleading themselves. I think, paradoxically, that it's kind of the intensity of the experience that's one of the things that draws people. . . .

Interviewer: So, in terms of trust, they have to trust you. Why is trust important in that kind of relationship?

M3: Well, it gets them a place in their life where they can say and do virtually anything, and I'm not going to jump down their throat. I'll give them honest feedback that is based on what I think is for their good, and that's perhaps the essence of trust.

Feelings of Belonging and Community

Participants often noted the importance of feeling a part of something as essential to a good grad school experience. In this context, the mentors in particular were aware that it is often important to facilitate this sense of belonging, to ensure that students derive both the personal and professional benefits of being a part of an important in-group. Mentors felt that they were in the position of gatekeepers or sponsors, and there was a sense of the mentors saying, "come be where I am." Students enter the program as part of the class called novice, and leave the program part of the group called doctor; it is important that this transition include actually participating in the new class, since the title

itself will not provide a sense of belonging. Further, once the student graduates, the groups that she or he was a part of during grad school dissipate, and need to be replaced by the larger professional community. M1, in defining a good mentoring relationship, said

M1: It would involve this sense of belonging, either to a scientific community at large or to a local community in which the goals of the larger realm or community are pursued.

Interviewer: So take it a step further. What does a sense of belonging. . .

M1: I guess that you have a place in the world. It gives you a frame, it defines your identity, and in some ways that's what graduate school is all about, it's about defining your identity. It's something to commit to for students; they commit to the discipline, they commit to a certain problem, to figuring it out. We're all academics, and we define ourselves. . . a lot of our identity is defined in terms of who we are, what we do. I think that's what's kind of attractive, in some ways, about academic work and research, is that you get to say, "this is who I am, I'm a scientist."

Again, it was mentors who were particularly cognizant of the importance of developing a sense of belonging or community among their protégés. They were often very intentional in their facilitation of this experience, and provided a number of opportunities for their protégés in this regard. For example, M4 included funding in her grant proposals to cover her protégés' expenses to attend national conferences. At these conferences she would ensure that they were able to not just meet but socialize with the "names" in the field. The protégés would also be included in the lunches and dinners that she had with other senior academicians and researchers. She noted that this not only gave her protégés important contacts and "bragging rights," it also gave them an opportunity to interact with high status and high powered people in a safe environment.

Other mentors were similarly intentional. M2 also took his protégés to national conferences, as well as bringing in well-known scientists in the field to join in the weekly

lab meetings, and to present and discuss their own work in the same way as did the protégés. The protégés also presented for the visitors. As M4, above, M2 also noted the importance of practicing professional and interpersonal skills with high status persons in a safe environment. M1, in addition to taking protégés to conferences and introducing them to colleagues and other professional, described putting his protégés' names on a letterhead he designed for the lab, so that whenever something was sent out from any member of the group, all their names were seen by the recipients. When asked why these were good things to do, he responded

They're a member of. . . they belong to the discipline. It's an issue of belonging to the discipline, they're part of the scientific community. Yes, they're a neophyte in the scientific community, but there are scientific communities, and it's important to belong. That's what that gesture means, aside from the networking and the [name] recognition and so-and-so is so-and-so's student. . . all that gets processed, but I think it's really as you say a socialization experience.

Mentors frequently mentioned lab or research group meeting as an important component in developing feelings of community. M2 says that his protégés present their results, interpretations, and the their plans for the next step at these meetings, and the other members of the group provide input and critiques. He notes that a major purpose of the weekly meetings is to establish bonds between the students and between him and his protégés, to develop camaraderie and belonging, as well as to help them see how other people think, and to help them develop communication and presentation skills. He also notes that he encourages them to mentor each other, which in addition to developing concern for one's colleagues and community, is an opportunity to develop the skill of mentoring.

Protégés focused on some of the behaviors that mentors engaged in that made them feel that they were in a peer relationship, that they were a part of a team, that they were a part of a community, as opposed to an isolated individual merely trying to get a degree. Two behaviors were repeatedly discussed by protégés as providing a feeling of belonging: First, the mentor being actively curious or getting excited about the protégés project or results, which was construed as an indicator that the work was something that a “real” scientist would do, and that it was worthwhile in a larger sense. Second, engaging in banter, laughing and joking with the protégé—especially inside jokes, self-deprecating jokes, or jokes that were directed at insiders—and other “unprofessional” activity. These, to the protégés, were clear cues that they were now a part of the in-group, as only members of a group are allowed to “denigrate” the group (c.f., in-group use of racial terms).

It is worth noting that although social activities were discussed by some mentors and protégés as a way to facilitate feelings of belonging, there was no clear correlation between nonacademic activities and good mentoring relationships. Some mentors and protégés felt that social activities were a very important part of the relationship, while others disagreed, citing concerns such as favoritism or loss of objectivity. One mentor indicated that in order to avoid perceptions of impropriety he did not feel free to socialize after hours with his female protégés, a constraint that he was not happy about. Nonetheless, for those mentors and protégés who feel comfortable engaging in social interactions, they appeared to contribute to protégés’ perceptions of belonging.

As implied earlier, this limitation did not apply in the context of conferences.

Participation in conferences and colloquia was noted by protégés, as well, as one especially important medium for developing a feeling of belonging. This more than any other specifically mentioned activity represented to them that they were in fact a part of a larger and important community. There appears to be a significant qualitative difference between belonging to a lab group made up of grad students, and experiencing the excitement and affirmation when participating in a professional conference. SP3 noted:

When we would go to conferences, people were really interested in what I was doing, and again the whole time [M3] would be there. And the fact that others are interested in what I was doing, and I could talk with them and have good conversations about things, and the fact that [M3] was excited to be there for those conversations as well—that was also the circle of approval of other peers that are out there. . . .

One observation made during the interviews, not mentioned directly by participants in the conversations, but relevant to the notion of feeling of belonging, was the consistent use of the pronoun “we” by both SPs and Ms, but not by DPs. This seems to indicate that at a very fundamental level a good mentoring relationship intrinsically is one of being a part of something, even if only a dyad.

DPs also recognized the importance of belonging, but typically had to find ways to facilitate this on their own. One DP, feeling that there was no relationship with her mentor, established a reading group among the mentor’s grad students so that they would have an opportunity to provide each other support. DP1 noted that he felt like a colleague only when he was doing work that served his mentors needs and professional life. DPs, far from feeling like they were a part of anything, indicated that they couldn’t get anyone to support their interests, that their committee wanted neither to meet nor to read the

protégés' work, and in one previously noted case, offered to help the student leave the program, since she appeared to be functioning without support. Of course, only one side of these stories is available, but regardless of the objective accuracy of these descriptions and attributions, the experience of DPs is one of isolation and disconnection.

Feelings of Increasing Competence

If the reason that most people come to graduate school is to attain some specific educational or personal goal, it would seem important that feeling that one was making progress towards these goals would be a relevant factor. A commonly known feeling in graduate school is the "imposter syndrome," in which the grad student questions whether she or he is competent to do the work, whether she or he should be there, and in which the student wonders when the real professionals are going to finally notice that "this person is an imposter, not a real candidate at all!" As an antidote to this syndrome, it is critical that the mentor ensure that events and experiences are available for the protégés that provide repetitive and clear cues that one is making progress toward the goal.

Indeed, protégés and mentors recognized this, and both groups of participants noted it during the interviews. M4 noted that, as a good mentor, "it's a part of what you want to support, I think, to help them develop. . . to believe that they can succeed, that they can take on challenges. And they may wonder why they did it, but, you know, they can pull it off!" M3 said that recognizing that "the mentoring relationship itself [is] a vehicle for having progress toward various goals" is foundational, and without that recognition, the relationship isn't going to work. SP5 noted the feeling that her mentor was helping her progress from neophyte to peer, and was not keeping her dependent. She

also noted that since she had great respect for him, when he simply told her that she was doing well, she believed him, and so she felt “competent and confident.” SP3 seemed inspired while describing some of these feelings:

It made me feel great! It was cool! It helped me feel like I was accomplishing things, like I was actually passing milestones or whatever, which I think it's a hard to feel, especially going through a doctoral program, where you keep getting more and more work. There are those milestones that are kind of far in-between, and it helped me feel that I was progressing, that I was going somewhere. I was learning, I was seeing, I could start to see. . . . I could visibly see myself becoming more and more like a professor, the level I wanted to be. . . . Sometimes it's kind of hard to feel that you're progressing, that you're going anywhere. You're just kind of floating, a never ending “Am I going to finish this battle?” And, yes, I felt that was something I could tangibly observe as being progress in myself—I was moving towards the goal of finally getting my doctorate.

Clarifying Expectations

A number of activities appear to be relevant to helping the protégé feel that she or he is making progress. The first one (chronologically speaking) is to clarify expectations and goals. The notion of an advance organizer is applicable here. Providing an understanding of the program, the requirements, the tasks to be accomplished and the relevant time frames allows student to keep ongoing track of their progress, especially when the goals are finite and concrete. M4 notes that she tries to make students fully aware of “what they're in for,” and what is expected from them as they're progressing. At the same time she states that it is important to “encourage them a lot, and give them a lot of positive feedback for the successive approximations that they've made. . . .” M3 states that students he works with are fully apprised of what he is doing and what he is interested in. As SP1 notes, when a mentor provides to the protégé a description of the

mentor's style and limits, the protégé is able to more easily negotiate the relationship and avoid tripping over things that might hinder this encouragement and positive feedback.

Following an Appropriate Developmental Course

A second factor that helps protégés experience successes and gains is when the mentor follows an appropriate developmental course in their expectations from and training of their protégé. Giving a first year student tasks appropriate to a fourth year is not often going to end up as a success experience, but neither will continuing to give a fourth year student tasks suited to a novice let that student feel that progress is being made. SP1 states that his mentor is "continually ramping up as far as how much you can handle. . . people who handle that, the addition of another stress, so to speak, continue on, and the people who start stumbling, he would probably back off."

All of the mentors were fully cognizant of the developmental course of a protégés education, and incorporated it into their expectations and goals. M2 describes how a good mentor recognizes that new students may not know how to do science, or what constitutes a good or bad research question, so he tries to build a program that teaches these skills. M4 notes that it's not expected that students will have great communications skills when they arrive, so they're taught. M1 said,

M1: I think the developmental systems model that we use is a perfect metaphor [for mentoring]. . . . The way you do it with advance students, and the kind of input that you give them and the kind of feedback that you give them is very different than the kind of feedback you give a first year, and there's sort of a middling phase which, to me, is the hardest, because you're always having to gauge what they know and don't know, and what's going to be salient, and what's going to stick and what's not going to stick. . . .

Interviewer: What would happen if you guessed wrong and expected something of them that they weren't able to give?

M1: Well, I have to scale back.

Interviewer: What would happen to them, in terms of their. . . [development]

M1: Oh. Well, it depends on who the student is, and if they student has fairly good metacognitive ability. Sometimes they're pretty upset that they'd let me down, or they're feeling that they don't measure up. Some of the students are oblivious—none of them are when they finish, but some are oblivious on the way. They'll get it. They'll figure it out.

Increasing Autonomy

A third condition, which is a derivative of the second, that provides evidence to the protégé that she or he is making progress towards the goal, is providing increasing autonomy and responsibility. Both mentors and protégés commented on being provided the opportunity to (and sometimes being required to) solve problems on their own, both research and personal. M2 notes that sometimes he has to push the protégés to engage in difficult processes, such as leading the research group or presenting, but that by doing so he facilitates their development in a safe place. M1 says that, especially as the students progress, he will tell them when something needs to be done, and let them figure out how to go about doing it. Or when a decision needs to be made, he'll tell them to make it. SP2 appreciates this approach; when asked whether she wanted to be told the answers to difficult problems, she said "No. No, absolutely not. I don't want to be told the answer; I don't want to be told what to do. I want to have some freedom and ability to develop my own understanding." She later continued,

In the beginning, of course, I was just learning techniques and basically doing experiments that were assigned. Then, after a while, after I got a little bit more involved she really let me kind of take things in my own direction. From doing my own reading of the literature and what I understood about Alzheimer's disease and other things, I've been able to develop my own set of experiments and my own hypotheses, and kind of my own little project, which has been very helpful, because or also allows me to do the kind of thinking. . . .And that's what you have to do in the real world.

The value of increasing autonomy and responsibility is, of course, modulated by the presence of many of the other factors discussed. This is evidenced by the nearly total autonomy and responsibility of three of the four DPs, only two of whom are completing their doctoral degrees. The comments of the two who are leaving with their master's degrees were remarkable similar. For example, DP2 noted that instead of being commended for what she had done, she was criticized for what she had failed to do. DP3 said that if she didn't have any ideas, she was told she wasn't doing the work; when she did have ideas, she was told they were no good. The two DPs who managed to complete their doctoral programs did recall some feelings of progress. DP4 noted that in spite of his mentor's failure to allow virtually any autonomy, he was learning important skills and behaviors – essentially, in spite of her efforts. DP3 felt that in the very specific areas of writing and research he felt that he was making progress when he was with his mentor, but in no other way (in the mentoring relationship). When asked whether he ever reached the point in his relationship with his mentor where he said “Whatever,” he replied:

I think that's a good way to look at it. . . . Yeah, I did. I can't pinpoint exactly when that was. I think once I found myself getting though the program and doing things, and then little things would come up. You know, I would get the kind of feedback I was telling you about: “What are you writing this for? Why are you doing this research?” I just decided I just didn't need to step over that boundary, so I didn't. So I'd just go to someone else and find another avenue. By the end, indifference was probably a good way to put it. . . .

CHAPTER 5 DISCUSSION

The present study attempted to uncover those qualitative factors that, when present in a mentoring relationship, qualify it as a good mentoring relationship. Neither good nor mentoring were defined for participants, which allowed the relevant characteristics to emerge from the participants' thoughts and experiences rather than be an attempt to inform a provided construct. Furthermore, although this project was exploratory and did not specify a strong or direct hypothesis, a central presumption was that merely having an advisor or "mentor," merely meeting with someone and being given some measure of advice and information, merely having a committee chair, was not sufficient to define good mentoring. As was pointed out by various participants in this study, students can get advice and information from almost anyone.

Covey (1998) reflected that teaching is heard, modeling is seen, but mentoring is felt. The affective quality of mentoring was supported by the findings of this project. During the analysis of the interview data, it became apparent that the characteristics definitional of a good mentoring relationship, as described by the participants, were affective in nature. As a result, how the protégés felt about what was going on in their relationship with their mentors became the primary data of interest: What they liked or didn't like, what they wanted, how things made them feel about themselves or their progress or their mentors was pivotal in the qualitative differentiation between good mentoring and bad mentoring. Indeed, it might be argued that in the absence of a positive

emotional tone, the term mentoring may be an inaccurate representation of the relationship.

It was determined that the factors most commonly reported to be related to the qualification of a mentoring relationship could be subsumed under a single category that was termed "positive affect." This became the core category, under which the remainder of the results could be compiled in a hierarchical structure. This structure contains three levels: the first or highest level is the core category, positive affect. The second level has five categories: feeling respected, feeling valued, feeling safe, feelings of belonging, and feelings of making progress. (Note that all category labels were selected by the researcher, and while intended to be representative of the contents of the category, remain matters of preference.) Some of these categories subsume third-level themes, which are themselves derived directly from the interview data. Note that while the project perspective ultimately focused on the perceptions of the protégés, these were, as much as possible, connected with the mentor's actions, behaviors, and words in order to better understand the mentor's part in the good mentoring relationship.

Feeling respected subsumes two themes: respect as a person, and respect of the right of self-determination. Respect as a person makes reference to the simple respect and courtesy that we all owe each other as persons. It is implicit in the nature and ethics of social intercourse. This type of respect was of most concern to mentors and to DPs, who considered it essential as a foundation to the relationship. Without this fundamental respect, there are few who could, or would, maintain a relationship at any level. The second type of respect was the respect for a person's freedom and self-determination. In a

sense supplemental to basic respect of person, this would be exemplified the additional level of respect maintained towards people's right to choose for themselves what they would like to do, or accomplish, or become. It was noted by all the participants that the purpose of mentoring is to facilitate the protégé's attaining their goals. This concept was discussed by participants in all three groups, but again most frequently by the mentors. While mentors noted the importance of creation and generativity in their own motivation for mentoring and the work it entails, they repeatedly asserted that it was the protégés' choices and desires that were the central consideration.

Feeling valued by or important to the mentor, the second major factor, provides important validation of the protégé's being and identity. The protégé is not simply a means to an end for the mentor, nor is she or he an extraneous and interfering aspect in the mentors' "real" work of teaching or research. Respect and value are differentiated (in this context) by the universality of respect and the individuality of value. All people deserve respect, but a protégé's is by definition of greater concern to their mentor than other people, a distinction that can be seen in the mentor's actions. The protégé picks up on these cues and behaviors and internalizes the mentor's valuations, developing a positive self-perception. Of course, DPs pick up a different valuation, and similarly internalize it, resulting in questions of self worth or potential in their chosen field.

Two themes were found to underpin feelings of being valued or important: availability, and time and effort. Availability was perhaps the characteristic of a good mentoring relationship that participant's mentioned most frequently, and was explicitly noted as an essential component – *sine qua non*. Availability refers not merely to physical

availability, but to psychological or emotional availability, such as is exhibited when mentors provided elaborated responses to questions, as opposed to short and accurate but unhelpful answers. The character of time and effort as indicative of the protégé's value is found in a mentor's level of activity or proactivity on the protégé's behalf. The mentor demonstrates her or his valuation of the protégé by the concrete investment of limited time and energy resources to the development and requirements of the protégé towards their goals.

The third major characteristic indicative of a good mentoring relationship, feeling safe, was particularly noted by SPs, but was discussed by all participants. Being in an environment in which the protégé did not experience rejection, received ongoing encouragement and affirmation, and in which the mentor could be trusted (the three themes underlying this category) was essential for the qualification of a mentoring relationship as good. Not experiencing rejection was an important component in the protégés willingness to take risks, to try new things, to admit mistakes, and to accomplish new tasks. DPs, who experienced significant rejection reported problems with confidence and motivation, and avoided contact with their mentors rather than experience feelings of rejection.

Obviously, DPs received little encouragement or affirmation, the second theme. Receiving affirmation and encouragement from a mentor seems to promote motivation and development, while rejection hinders these processes. In fact, of the three themes making up feelings of safety, this was focused on least by all groups. It might be hypothesized that rejection is a much more powerful form of feedback, and thus much

more salient. Rejection can have an immediate and pervasive negative impact on a mentoring relationship, while experiences of affirmation might individually have a much smaller impact. This also might represent a baseline affect that is slightly positive, in that no rejection is itself a form of affirmation. Future research might look at this difference in the reports of participants.

Despite the pervasive use of the term trust, and its consequent ambiguity, there appeared to be a particular conception of trust reported by participants that was related the theme of honest feedback. It was of special importance that mentors provide honest (but not rejecting) feedback to protégés about their work, skills, competence, and potential in the field. Protégé's noted that even when it was unpleasant, it removed significant uncertainty and stress, allowed them to make better decisions, and was indicative of a functional relationship.

The forth category was defined by feelings of belonging and community. All participants indicated that feeling a part of something was an important part of the experience, and that the mentor was a primary facilitator of this feeling. In fact, mentors were particularly cognizant of the importance of protégés' becoming a part of their professional communities, more so than the protégés, who seemed primarily to notice either the feeling of belonging or the absence of it. Mentors facilitated these feelings in the way they constructed their programs and in the way they ran their research and lab groups and meetings. They also enlarged the community by supporting protégés' attendance at conferences, and by bringing important people in the field in to the department to interact with the students. Mentors are also in the position of gatekeepers

to their respective professional communities, and provided references, introductions, and other networking benefits to protégés.

The fifth and final category representing factors that contribute to the evaluation of a relationship as a good mentoring relationship was feelings of making progress. Graduate students often feel what is referred to as the "imposter syndrome," which attempts to describe the doubts that they have what it takes to succeed in their field, and that soon someone will notice and ask them to leave. This syndrome is only partially tongue-in-cheek, as evidenced by the discussions of the participants in this study, as well as its' not infrequent appearance in conversation and the literature.

Since most people in graduate school have an agenda, a goal, feelings that one is making progress toward that goal will be rewarding, and thus motivating. Objective measures of progress are often hard to come by in graduate school, and tend to be infrequent (e.g., the masters' degree), or uninformative (e.g., grades). It is thus important that the mentor provide ongoing success experiences and clear feedback when progress is being made. Clarification of goals and expectations, following an appropriate developmental course, and increasing the protégé's autonomy and responsibility all contribute to the ability of the protégé to recognize their progress towards the goals. Clarifying goals and expectations reduces the problem inherent in measuring outcomes in any domain. It is essential to know the goal before it can be determined if it has been reached. When the mentor takes the time to clarify their expectations of the protégé, the protégé is more meaningfully able to understand the implicit goals that a mentor has, so she or he can incorporate those into her or his processes.

Additionally, it was repeatedly reported that good mentors were aware of the progressive nature of their protégé's development, and that significant consideration was given to ensuring that the developmental status of the student was assessed and their unique developmental needs were matched. This allows students to experience more successes, and to become more aware of their own development as they continue to engage in more developmentally advanced tasks. Closely related to this is the provision of increasing autonomy and responsibility as the protégé becomes more skilled and more able to cope with complex or advanced tasks. Protégés' noted that this was one of the important cues that they were getting closer to their goals of becoming professionals, and that it prepared them for entry into that world. It was a clear indicator, other things given, that in their mentors estimation they were able to function as beginning professionals rather than merely students.

An interesting feature of these findings is the commonality of perceptions amongst participants as to the characteristics of a good mentoring relationship. This bodes well for the generalizability of these results, a possible limitation of this project. While there were certainly individual variations in emphasis and focus, the majority of these characteristics were discussed at some level by virtually all of the participants. For example, one mentor discussed belonging much more than the others, another focused on trust, and all four used—but two were particularly enamored of—parenting and attachment as metaphors for the mentoring relationship, as were five or six of the protégés. Also significant was that the dissatisfied protégés often confirmed the importance of these factors by explicitly noting their absence. Of course, factors that

found little common support as important for good mentoring were not construed as central, and were not selected for inclusion. For example, financial support was noted, but it was not represented as important to the quality of the relationship.

Another factor discussed, but not included as a factor was non-academic social interactions (drinks after work, social meals, games and sports). Based on general readings of the literature, it was expected that social interactions outside the academy would play a larger role in the minds of mentors and protégés in their definitions of a good mentoring relationship. The data do not support this expectation. Although a number of the participants indicated that they engaged in regular social activities, such as going out after hours, or having protégés to their houses not infrequently, some mentors and protégés indicated that this was not a factor, that they preferred not to engage in this level of social intimacy, and that it in fact might prove an obstacle to maintaining objectivity when difficult evaluations were needed. Insofar as the mentors and protégés were matched with each other in terms of their preferences in this area (as far as could be determined by the particular sample in the project), it seems likely that this is an individual difference factor, and not a factor related generally to good mentoring relationships.

Another finding that was unexpected was that whether the mentor was actively engaged in research or not was not invariably related to good mentoring in the context of doctoral students. It was expected that in the context of mentoring graduate students, mentors would need to be active in research, if for no other reason than to provide good role modeling in that domain. Although most participants indeed felt that it was critical

that the mentor be actively engaged in research, and that they obtained significant benefit by observing their mentors in that role, this was not unanimous. In fact, one of the mentors, who had recently received a national award from graduate students for his mentoring, was not engaged in any research at all. Possible explanatory factors include that this mentor has a highly active and productive research lab that he oversees but his graduate students run, that he has done extensive research in the past, and that he continues to be a prolific writer in the field. It was noted by one protégé that whether they were actively engaged in research was less relevant than whether they had been. Further research to determine the parameters of this variable would be valuable in determining important mentor characteristics.

The findings of this research are consistent with much of the previous work on mentoring. For example, general support was found for phases in the mentoring relationship as described by Phillips (1982), Missirian (1982), and Kram (1983). Although specific stages were not differentiated in this analysis, the participants did note the central importance of being aware of and adhering to a clear developmental course, and especially of the mentor's engaging in an ongoing (if informal) assessment of the protégé's progress along this path. Participants also noted the developmental course of the mentoring relationship itself, describing "stages" quite similar to those in the literature. Discussions of the participants also were consistent with researchers' perceptions of a vast diversity of mentoring functions, though not Pollock's (1995) 144. High quality mentors once again were represented as truly amazing people, who have cared for and nurtured protégés as their own children.

There are a number of factors that may represent limitations to this study. First, there was only one coder of the interview data; the author performed all coding and analysis tasks himself. Although this is not uncommon in this type of research (Dick, 2002; Kram, 1985), it must be noted that this will introduce the likelihood of a subjective bias. As Kram (1985) noted, "data collection and data analysis can not be separated in exploratory qualitative research" (p. 215). Ongoing analysis of the data by the researcher is an integral part of the process of gathering additional data; it does not occur only at the conclusion of a data collection stage. Indeed, the researcher is construed as a primary tool in the analysis.

In grounded theory, it is asserted that avoidance of this bias this is not entirely feasible (nor even necessarily desirable, given the presumed developed expertise of the analyst). The presence of bias is dealt with by first making the researcher's biases as far as possible explicit, and then by accepting the limitations on the researcher's ability to make unbiased "truth" claims about the findings. It is left to the consumer of the research to determine for her or himself whether the researcher is credible and her or his conclusions are plausible. Grounded theory, however, makes no assertion that the particular conclusions of the researcher's analysis are the only plausible conclusions; other researchers might well come to different conclusions, or find different factors more compelling. This does not impact the value of the present research for structuring the data or developing substantive theoretical models (Glaser & Strauss, 1970; Rennie & Brewer, 1987).

Researchers using the grounded theory methodology consider the concerns about researcher bias to be significantly outweighed by the complementary benefit; that is, that the qualitative method "is often the most adequate and efficient method for obtaining the type of information desired" (Glaser & Strauss, 1970; c.f., Giorgi, 1992). The use of the grounded theory method is perhaps the most notable strength of this project. This methodology has been used numerous times in the mentoring literature, not the least important of which was Kram's original and seminal work (Kram, 1983, 1985). It has also been used to explore the mentoring experiences of GLB graduate students (Niolon, 1997). Thus, the limitation due to subjectivity is induced by the specific strength of the project, that of being able to distil out the subjective factors definitional of the quality of the relationship.

A second potential qualification is that of limitations on generalizability. The sample consisted of ongoing or recently graduated doctoral students (or, in the case of two of the dissatisfied protégés, students who decided to leave their programs after obtaining a master's degree), and graduate school faculty mentors. In addition, the number of fields and departments sampled was necessarily limited, though efforts were made to include some diversity. Strictly speaking, the findings should be limited to these populations. Further research with samples from other fields or departments, and from business settings should be carried out to strengthen the generalizability of the findings.

A final factor to note is that no effort was made to account for or control for personality or other characteristics that the mentors or the protégés brought to the relationship. This was noted previously as being a strong potential confound for much of

the mentoring research (e.g., Green & Bauer, 1995; Lovitts, 2001; Turban & Dougherty, 1994). While the research on prior factor's contributions to mentoring outcomes is an important consideration, and would seem likely to play a part in a mentor's or a protégé's qualification as a relationship as good, this is not construed specifically as a limitation. The present research was descriptive of affective conditions and behaviors within the relationship, not of the characteristics of the mentor or the protégé, *per se*.

This research provided an embarrassment of riches. Like a net with a small mesh, far more data than is immediately usable was gathered. However, one of the design parameters of the method of analysis used is that the researchers seek to uncover and develop only one core category in any given project (Glaser and Strauss, 1967). Thus, while there is sufficient data to develop other projects if desired, it is argued that inductive focus is lost if all possible categories are sought and elaborated.

Aside from research replicating these results, two areas in particular that would be fruitful for future research include an exploration of the applicability of attachment theory to the mentoring relationship, and developing a training model with which to disseminate these findings. The prevalence of the parenting metaphor, as well as the ease with which many of the central factors uncovered can be mapped onto the attachment model present tantalizing clues that the extensive literature on child attachment processes could be mined for use in understanding and developing the mentoring relationship.

Second, exploring whether the findings of this project can be developed into a training program for mentors and protégés would be valuable. Many of the categories delineated here are closely tied to definable mentor behaviors. These could be more

clearly operationalized and disseminated to mentors and protégés, and qualitative as well as quantitative outcomes could be measured. If the quality of the relationship is strongly associated with both subjective and objective outcomes (Lovitts, 2001), these findings may provide a way to improve these outcomes.

The unique contribution of this study is the uncovering of specific affective components critical to a positive evaluation of the mentoring relationship. No previous study was found that specifically focused on these factors. Given the opportunity to elaborate those factors they believed to be central to good mentoring, participants focused on affective components, not rational, concrete, technical factors. These other important factors were neither ignored nor minimized; rather, it was noted that these things could be obtained even from a poor mentor, or another person entirely.

The centrality of affect to differentiating mentoring from other, possibly very productive relationships, may also help explain the difficulty that has been ubiquitous in defining mentoring. This research implies that mentoring is not a concrete construct that can adequately be represented by functions and phases and outcomes; it is a human relationship with fuzzy boundaries derived largely from affective rather than cognitive factors. Whether or not the satisfied protégés in this study will ultimately receive more money or more promotions, they will likely continue to assert that they were well mentored, and that their mentors were and are important people in their lives. It is hoped that these findings will provide mentors and protégés, and others concerned with these relationships, some guidance in developing what all hope to experience—a good mentoring relationship.

APPENDIX A INFORMED CONSENT

Protocol Title: Mentoring

Please read this document carefully before you decide to participate in this study.

Purpose of this research study:

The purpose of this study is to look for psychological factors in the mentoring process that facilitate the success of the relationship.

What you will be asked to do in this study:

You will be interviewed by the primary researcher in a mutually agreed upon private milieu. You will be asked a number of open-ended questions regarding your experiences with and perceptions of mentoring and the mentoring relationship. These questions will serve as an introduction to discussion, and will be followed by an unstructured dialogue between the researcher and yourself. This discussion will be audio taped for later transcription to hard copy.

Time required:

It is expected that the interview will last approximately 1 hour.

Risks, benefits, and compensation:

There are no anticipated risks associated with this study, nor are you expected to derive any direct benefits. There is no compensation for your participation.

Confidentiality:

Your identity will be kept confidential to the extent provided by law. No identifying information will be requested while audiotaping is in progress, nor will any identifying information be included in the transcripts. The tapes and transcripts will be labeled using a code number, which will be kept separately from a master list. Transcription will be carried out by the primary researcher or a supervised research assistant. The audiotapes and the transcripts from the tapes will remain at all times in the care and control of the primary researcher. When the project is complete, the audiotapes will be erased and the master list destroyed. The transcripts will remain in the care and custody of the primary researcher. Your name will not be used in any report.

Voluntary Participation:

Your participation in this study is completely voluntary. There is no penalty for not participating. You may decline to answer any question.

Right to withdraw from the study:

You have the right to withdraw from the study at any time without consequence.

Whom to contact if you have questions about the study:

Primary Investigator: Mark Brechtel, MS
Department of Psychology
Box 112250
University of Florida
Gainesville, FL, 32611-2250
352-392-0601
brechtel@ufl.edu

Faculty Supervisor: Franz Epting, Ph.D.
Department of Psychology
Box 112250
University of Florida
Gainesville, FL, 32611-2250
352-392-0601 ext. 256
epting@ufl.edu

Whom to contact if you have questions about your rights as a research participant in the study:

IRB Office: UFIRB Office
Box 112250
University of Florida
Gainesville, FL, 32611-2250
352-392-0433

Agreement:

I have read the procedure described above. I voluntarily agree to participate in the procedure and I have received a copy of this description.

Participant: _____ Date: _____

Principal Investigator: _____ Date: _____

KU ADDENDUM TO UF PROTOCOL # 2002-551
TITLE OF PROTOCOL: MENTORING

In keeping with the University of Kansas's interest in protecting the rights and welfare of research participants, this addendum provides additional local contact information for the principal investigator and the University of Kansas faculty sponsor. If you have any questions about the project, please contact:

PRINCIPAL INVESTIGATOR: Mark F. Brechtel, MS
Counseling and Psychological Services
2100 Watkins Health Center
University of Kansas
785-864-2277
brechtel@ku.edu

**UNIVERSITY OF KANSAS
FACULTY SPONSOR:** Francis J. DeSalvo, PhD, LCSW
Counseling and Psychological Services
2100 Watkins Health Center
University of Kansas
785-864-2277
frankd@ku.edu

If you have any questions about your rights as a research participant, please contact:

Human Subjects Committee – Lawrence (HSCL)
University of Kansas
241 Youngberg Hall
2385 Irving Hill Road
Lawrence, Kansas 66045-7563

Contact Person: David Hann
dhann@kh.edu
785-864-7429

Agreement:

I have received a copy of this addendum, which provides local contact information regarding the indicted protocol.

Participant: _____ Date: _____

Principal Investigator: _____ Date: _____

APPENDIX B
MENTOR INTERVIEW SAMPLE

MARK: (continuing) so tell me . . . let's go ahead and start talking about mentoring. Just a global question: What do you think represents an effective mentoring relationship, and obviously this is going to take more than 25 words.

M1: First and foremost I think its commitment to somebody else's career. So, when somebody comes in and says they'd like to study. . . . I'd like to work with you—and I'm a lucky person in that I have marginal visibility nationally, so the people will apply to work with me. I'm lucky, I don't say deserve that. It's an honor, first, to have that happen, and second, it's a responsibility, because to me it implies a ton of obligation that the applicant probably doesn't realize. I have put out for them. I have to look out for their career interests. I have to look out for their mental health to some degree, and in many cases I feel responsible for their being able to have meat and potatoes. I have to try my damndest to try and support them financially in a way that makes them comfortable but not too comfortable and to get them through. So, it's really a commitment to all three of those areas I think, and there's probably more that I'll think of as we go on today, but at minimum it's those things. So, I have to know what they are interested in, I have to know what they wanted to. . . my favorite question to people is "tell me what your life looks like five years from now," and once we know that then we craft the next five years or plan for the next 2-3 years to get you there. So . . .

MARK: So you're real intentional about this. You don't just wait for somebody come in and . . .

M1: No. If you wait . . . usually people don't come in chat until there's a problem, and by then who knows what. . .

MARK: Do you have a schedule; get to meet with them on a regular basis?

M1: I have a team . . . I have found in the past . . . see, I have to now segregate my career into before associate dean and after. Before taking this administrative post, I was in the lab constantly, which...I'm not sure how my students liked that or not (laughing). . . but I was there constantly and I was in my office constantly...my door was always open. So, we got our last NIH grant in '98, and I said that "we should have regular staff meetings" and they said, "For what? We don't have to have this, you're always around." So, that's how that's happened. Now, what I do now is a little different, because—this is going to screw up your study—what I do now is check in with them, because I'm not available on a regular basis. I should say . . . they're still welcome to walk through the door; it's just that I'm physically removed from the premises. So, they're still welcome. I feel like I have to check in with them occasionally, but they're still welcome to check in with me. E-mail's good for that. They can call me, but they know that e-mail's better. And they're not shy about asking for time, and I still give them top priority. If they need to get in to see me, that's still my top priority, for them to come in and.... We don't really have meetings, staff meetings, because . . . what I found that happens during staff meetings is we do get to iron out things, but right now I have my post-doc who can handle a lot of the ironing out. And the other thing is that I like them to work together as a team, to work out

their own schedules. I don't like to set . . . I know we have three lab sites, we have different projects going on in the labs, at different times, and . . . I know some people who structure their students time—you have to be here at this time, you have to be there at that time—I basically let them make their own schedules, and I just say "here's what has to be done, and you guys figure out how to go about getting a done." So, I found that at meetings, at regular staff meetings, people come up to me and say, "Who's going to make that decision." And I'd say, you guys deal with that, I'm not going to do . . .

MARK: How is that different from before, when you were always there? Was it the same thing then?

M1: It was basically the same thing then. I took a little bit of a more . . . I can tell you that I was far more proactive in getting issues out and dealing with them that I am now, but I'm pretty confident now that my post-doc can keep a handle on that. She'll say, I'm not sure to bother you with this, normally I'd handle it myself, but this is something that I need you to do.

MARK: So your post-doc, then, when she has problem, how does that look, in terms of the discussion?

M1: I say, "What's the problem." She says, "Here's the problem." We look at the parameters, who's affected, what needs to be done, who needs to do it, and if it is something that I have to do I'll pick up the phone or take some action to change it. Or for something that she can do, I'll say that here's what I think you should do, does that sound OK to you?

MARK: she is being mentored . . . and, of course, you're right, it is a little different . . .

M1: It's not all that different.

MARK: OK. But I'm trying to figure out, what is she getting out of this? Is she getting out of this what she needs to get out of this?

M1: She, in effect, is now getting training as a lab head, and she's getting training in supervising grad students. So, she's getting that kind of experience that is going to be valuable in the long run.

MARK: Let's try a different one. Let's say you're back in your lab, and your door's always open, and you're pretty much always there. What is different about the way you did things, than the way, say, somebody else who was always there with their door always open, but wasn't well liked as a mentor. What were you doing, what were you giving them that was different . . . ?

M1: Well, I have to make the other person up, because . . . there's got to be more than one other person, because other people do different things . . .

MARK: Well, we can just eliminate the other person. What you think that you were giving them that was making it work for them?

M1: I think first and foremost that I was giving them advice or direction that was consistent with them actually getting what they wanted in terms of career; in that it made them competitive nationally for positions. Or, if they didn't want a nationally competitive position it made them competitive for whatever it was that they wanted to do. The second thing was I think my students feel supported by me. I've never asked them that question directly, but I think that they feel, again, primarily . . . I can sense some grumblings now that I'm not on the premises, but I think they felt that I was interested in supporting them

on a number of different levels. For example, if they came to me and asked me for something, I tried my best to get to them. But also...I guess one of the things that struck me is that it was actually pretty rare for, I found out recently, it was rare for graduate advisers to invite students to their homes for dinner, or go out there with them, or to throw Christmas party at your house and buy them presents, even if it's a book that has to do with the field. It doesn't happen! I was just aghast that that didn't happen! I do all those things, and I thought that—not that my adviser did that for me, but I thought that the students came all this way to work with me, or work on the same kinds of problems that we were working on, that I owed it to them. Happily, but I owed to them in the larger context.

MARK: So, if you were to think like a psychologist . . . I'm a student, and I come work for you, and you say, "We're having a dinner. All the students are getting together and going out for dinner." How does that make me feel? See, because what I'm trying to understand is what's going on within the person, almost like I can take an attachment model, or I can take a developmental model . . . Psychologically speaking, what is a student getting from a good mentor?

M1: I think that the message that they are getting is that I care about them as a person. It's trite, but I think that's it. They're not just someone who works for me, even though I pay them, they're not just somebody who represents my ego extended, because really I want them to get to do whatever it is that they want to do. I don't . . . some advisers get really upset that their students don't go onto research one institutions. I've had students that go onto research one institutions, and I've had students who have quit to work in

industry, and both are fine as far as I'm concerned because they get what they want, and the degree to which we prepared them for any of those positions is positive.

MARK: So what happens to those students, not necessarily the students that you've had, but students working with somebody who doesn't have that focus?

M1: I've think that they're generally regarded not worth the time, so they get less quality time, possibly less time overall, and certainly not the quality of attention or feedback that a student having a little higher. . . or aiming for the prototypical research job may get.

MARK: What is that?

M1: That's the whistle. Classes are over. It happens 20 after and 10 until.

MARK: Every hour?

M1: Yeah.

MARK: How come I only hear it about three times a day?

M1: I don't know. Where's your office?

MARK: I'm down at Watkins.

M1: OK, so you won't hear it down the hill so much. It's a real trip to be next to it what goes off.

MARK: Really! So, a student is feeling that he's valued . . .

M1: Yes, I think that's right. I should say that one of the things I have, I model for graduate training is a junior colleague model. It's different from an apprentice model, or a kingdom model. In a junior colleague model I accept them and I'm obligated to treat them as I would a junior colleague, and not a grad student, whatever that is . . . they're involved in as much . . . I try to involve them in as many tasks as I can that I do so they can see

what it's like to do that, in the hope that eventually they'll deal to do it on their own, either here, so I can now actually delegate that level of work to them eventually, and also so that they I can, I guess, so they can do it wherever they end up. Within that model, the way I go about doing it is, I use a hierarchical lab set up where the most senior grad student is the one that I will often say, OK, so and so knows how to do this so go talk to them. So, depending on when you came, there's sort of an inherent hierarchy where the people who know the most are often the dispensers of information. The other issue is making sure that those relationships are OK—that's also something I was never trained to expect to have to do, or to do. You want to make sure that those relationships are OK, because when they're not it wreaks havoc.

MARK: How do you go about doing that?

M1: When there are conflicts, and they're relatively rare, we treat them as problem solving sessions. We bring people in—not together—and say "what did so and so say?" Well, here's why so-and-so might have said that. Or, sometimes I'll get—it's important to get both sides of the story, and if I come to the decision that so-and-so's wrong, I'll just ask them and say, well, that shouldn't happen again. And they'll say that to the student, eventually. It's all got to be handled, in an interpersonally sensitive way; otherwise it all goes to hell.

MARK: What about socialization experiences? Do you introduce them to valuable people . . . ?

M1: Yeah, I do to the extent that I can. I don't do it right now. For a while I put their names on . . . I created a lab letterhead and I put all their names on the letterhead, so any

correspondence that went out people got to see their names. Not that they'd take notice of those names, but later on psychologist might say, "Where have I seen this name before." That might happen, so that was pretty intentional. But I do introduce them to colleagues and conferences, I make sure that they get . . . it is appropriate to make sure that they get to talk about what they're doing; I spread their names around when I can.

MARK: What do they get out of it, psychologically?

M1: Well, obviously they're being . . . okay, psychologically . . .

MARK: Again, I'm trying to get behind it, not just what you do, but why is a good thing.

M1: They're a member of . . . they belong to the discipline. It's an issue of belonging to the discipline. They're a part of the scientific community. Yes, they're a neophyte in the scientific community, but there are scientific communities, and it's important to belong. That's what that gesture means, aside from the networking and the recognition and so-and-so is so-and-so's student . . . that all gets processed, but I think it is really as you say a socialization experience.

MARK: Do you think they get the same kind of thing from the structure, the informal structure in a lab's, where they have a hierarchy, a friendly hierarchy as you call it . . . ?

M1: Yeah. I think that it's a community, on a smaller scale, of course but, yeah.

MARK: You're developmental, and I'm not sure exactly what aspect . . . your focus seems to be on neuroscience, but if you had to . . . if you were to pick a developmental model that might subsume mentoring, would you be able to . . .

M1: I think the developmental systems model that we use is a perfect metaphor. I hate to be somebody who's "I've got a hammer and everything is a nail," but . . . well, sometimes

(laughter) . . . but, it really does work. The way you do it with advanced students is, and the kind of input that you give them and the kind of feedback that you give them is very different than the kind of feedback you give a first-year. And there's sort of a middling phase which, to me, is the hardest, because you're always having to gauge what they know and don't know, and what's going to salient and what's going to stick and what's not going to stick.

MARK: What would happen if you guessed wrong and expected from them something that they weren't able to give?

M1: Well, I have to scale back.

MARK: What would happen to them, in terms of their . . .

M1: Oh. Well, it depends on who the student is, and if the student has fairly good metacognitive ability. Sometimes they're pretty upset that they'd let me down or they're feeling that they don't measure up. Some students are oblivious. . . none of them are when they finish, but some are oblivious on the way. They'll get it, they'll figure it out.

MARK: Do you ever . . . do you have any female graduate students?

M1: They're all females. I've had two male students, no, sorry, 3 male students.

Psychology is increasingly becoming feminized, to the point where clinical psychology programs are being asked "what are you doing now to actively recruit men into the program?" I work in developmental, which has kids and babies, and it seems to naturally attract women to the study, and so I've had one male student who's gone on to a position, another student who's worked, who wasn't technically my student but I let them work in the lab and do his dissertation there—I basically guided his dissertation. He went off to

the school of education (garbled) chair. . . and currently I have another male student who's going to be finished . . .

MARK: Actually, that's interesting, because I was going to ask a question about your dinners and Christmas evenings and social gatherings, if having female students was different from having male students.

M1: You know, I haven't . . . I've found male and female students to be equally sensitive, although in slightly different ways, in terms of how they take feedback and in terms of how they respond to things. I have a box of tissues always around, just in case. I just had a conversation today about students getting emotional, and is it that my experience that women will get more emotional than men under stress. But men are just a sensitive, they just show it in different ways, respond in different ways. If you're talking about relationships and that sort of thing, it's very safe for them. I'm married, I have two kids, and a dog. . . I have a very stable family life, so it's not an issue, not even close.

MARK: Because it is actually, has been brought up in the literature . . . getting too close to female protégées

M1: Yeah, it's been brought up, there's a bunch of books on it, including exposes and what have you . . .

MARK: So, you haven't had a problem with that?

M1: No . . . I'm old now (laughing)

MARK: So, you have two kids? How old are they?

M1: Five and seven.

MARK: Actually, kids are why I got into psychology. My wife and I were foster parents for a longtime. My very first paper as a grad student was on developmental neuroscience. It still has some degree of fascination, although I haven't had much time to pursue it.

M1: Yeah, it's moving pretty fast. One thing I do notice that you do have to, initially, is kind of convince female students that they don't have to worry about that part of the relationship. When they come in, you can always see that there's a little bit of hesitancy in that, and that it's something that they're kind of thinking about, to protect themselves against . . . After our first few meetings, it's not an issue anymore. But there is that. With men that's obviously not an issue.

MARK: Are the students, generally, when you take them on, uncertain about what it's supposed to be like.

M1: Yeah, they're pretty clueless. Some of them . . . they're not sure how to act, and what can be like, so that's why it's important to present yourself as a real person, and . . . some of them I'm pretty . . . actually, none of my students are formal with me. Today I had a student switch over and say she wanted to work with me, and I said fine; she still calls me Dr. and whatever . . . I hate that, but I won't instruct her to do otherwise until she feels comfortable doing that; it might be taken as a rebuke, or something like that.

MARK: Do you think that you provide the atmosphere or safe base where they can . . .

M1: Yeah, I think that they always feel that they know where they stand with me, and in that . . . we're talking about successful students, because I have had unsuccessful students, I'm assuming that we'll get to those eventually to . . . but I do think that they feel that I'm interested in them as a whole person, that they do feel safe with this as somebody who

can take care of a lot of different things. They tell me when... they tell me "I haven't been doing well lately, and here's why, Yeah, I know I haven't, I've been cut out of it lately, I've been struggling, I've really feel depressed lately about this or that." And so they seem to be fairly comfortable. I can't say all of them, but the sense I have is that they feel like they can tell me that kind of stuff.

APPENDIX C
SATISFIED PROTÉGÉ (SP) INTERVIEW SAMPLE

MARK: As my e-mails said, this is a dissertation project about mentoring, and obviously I got your name from M1. What I'm doing is I'm trying to figure out what is good mentoring. M1 for example, received an award for mentoring. Why did M1 receive an award for mentoring? It's more basically at a psychological level; it's not how many times you meet, although that's a part of it. It's not real core stuff like that he may answer your questions. Why does meeting with him work? What is it about meeting with him? What are you getting out of it? What are you feeling? Why is that good for you? So, as we talk I think we'll probably just kind of beat around the bush about certain things, so that doesn't matter. . . . So, basically, I'll start with the question; how would you define good mentoring? How would you define a mentoring relationship?

SP3: hum. . . to define good mentoring. . . .

MARK: And you don't have to get it right.

SP3: Yeah. I was going to say, that's a tough one.

MARK: This is exploratory. . . obviously I'm not trying to defend a hypothesis here; I'm trying to find out what people think, so don't even think about trying to get it right. Just whatever comes to mind, because as we talk for the next little while, more things will come to mind.

SP3: Right. Well, I think probably. . . one, to be available is the most basic. . . to be able to be there, willing to meet with you, and to talk about your interests. But beyond that is to

be a motivator, to help you one way or another. . . to help you be excited about what you're working on. To help you see the benefit, or the momentum of what you're gaining as you're working on something. Benefit in the sense that they point out to you and help you see that you're actually contributing something, you're showing your. . . . You know, with [M1], he got excited. [M1] got excited when we would look at my data, and he would say, "Nobody else knows this! That's cool!" And that made an impression on me. It got me motivated to continue through the process rather than fading out, which happens to a lot of people.

MARK: What is it about being excited that's motivating? Nobody else knows a piece of information, you know the piece of information, why is that important?

SP3: I don't know. I just had somebody in here the other day, and we were going through some data, and we were supposed to go to lunch. It was 2:00 then, and I was kind of like, "we've been in here a long time, we better go to lunch." I just really love it; I love mining through the data. And so to have somebody else be excited about that, and to think you are actually contributing something new to. . . that, to me is. . . . I don't know why, actually. . . .

MARK: To have somebody else, is there, camaraderie?

SP3: Yeah, I think that. I think also to be that guiding. . . . You know sometimes there are things there that you don't see, so to be willing to sit there with you and go through the information. I would come to [M1] and say, "Hey look what I saw, and what I found, this is what I see in here," and that's kind of cool, and he would come from a completely angle, "well have you looked at this?" Rather than just tell me to go off and look at that,

he would say, "do you have your data with you?" And if I did, then he'd sit down and we would both sit there, and miss lunch, and play with the data. It was that kind of interaction, that at least for me, was a real Godsend.

MARK: How did that make you feel, when you do that, you go through your data, and he says, lets look at it?

SP3: It made me feel great! It was cool! It helped me feel like I was accomplishing things, like I was actually passing milestones or whatever. Which, I think it's hard to feel, especially going through a doctoral program, where keep getting more work and more work and more work. There are those milestones, but they're kind of far. . . few and far between. And so it helped me feel that I was progressing; that I was gaining something. I was learning, I was seeing. . . I could start to see that I was bringing better questions, and I was already anticipating what he was going to say. So the next time I came in and said, "Hey, look what I found, this is really cool," and he would say, "Well did you do that, did you look at this?" and I would say, "Yeah, I did," and he would still have something else, but we could kind of. . .

MARK: What does it feel like when you have anticipated?

SP3: Again, I felt like I was accomplishing something. I felt like I could visibly see myself becoming more and more like a professor, like the level I wanted to be, the intellect level.

MARK: So you are accomplishing something towards your own development?

SP3: Yeah.

MARK: OK. Because I was wondering if you were thinking in terms of accomplishing something in society or something. . . .

SP3: Nah (laughing). That's what I'm. . . ultimately, to disseminate that information, but no, I felt I was gaining for myself.

MARK: You were learning, you were getting better, you were getting smarter, you were actually getting something out of it.

SP3: Right, and could see that. Like I said, it just seems that the milestones are so few and far between. Sometimes it's really hard to feel that you're progressing or going anywhere. You're just kind of floating in this never ending "am I ever going to finish" battle, and yeah, I felt like that was something I could tangibly observe as being progress in myself. That I could move towards the goal that I wanted to, of finally getting my doctorate.

MARK: Did you. . . when you had those situations where you predict ahead of time what he's going to say and you get it right, how does that make you feel?

SP3: Again, that feels good. It felt like I was. . . like I knew that that was coming. . . . And just thinking ahead about. . . like with my writing, being able to try and anticipate what reviewers might come back with. That was kind of my thinking about that, was can I anticipate what to somebody else, who's a little more experienced in the field, what are they going to ask when I say x, z, y? What's the other piece that they're going ask about? To be able to anticipate that. . . . Again, for me. . . I didn't actually come in to this field, I don't know if anybody does, in any kind of normal sense, it was not like I always wanted to do this. I kind of stumbled into psychology, and stumbled into [M1], too. So, for me I

was always looking to reaffirm I was in the right place. I was at originally an English major, and I was interested in starting in children's books as a genera of literature, and I just assumed somebody out there had done the research on what you should read to your kids. And, so, that was my senior year as an undergrad, and I started actually doing some research working with somebody in the English department. She said, "yeah, just go look that up and see what books are good, and that might be a good starting place for you." I didn't find any research, and really didn't find much about anybody really defining whether some books are better for kids or how do you define that?

MARK: In terms of language acquisition, or were you at that stage yet?

SP3: I wasn't at that stage quite yet. I had it in mind that one thing children were gaining from it was language. But I was also looking for anything about, you know. . . including images, whether or not some children seem to like. . . or whether you could classify it at all that way. I figured at least for a least from the language points of view, you weren't reading Moby Dick to three-year-old, they weren't that interested in. . . they prefer cartoons or what ever. So that was kind of my. . . so, I kind of suddenly changed gears into this other area. And I had kind of the plan of what I thought I might do in English, and psychology was a real change for me. So, the more I got into it, the more I kind of felt like I was in the right place. But I also was always looking for that affirmation of that, that this is the right place. and that also that I could. . . I had reservations whether or not I could handle a psychology program, especially coming from an English program, which was not very heavily science based. And so for me, it was affirming to myself that I could do this. When I would come into [M1] and we would have one of those interactions, it

was affirming that I could do it, and it would help me to affirm that if I was excited about it, and having fun doing it that I was in the right place. And I think also, seeing that [M1] was also excited about it, made me think that, maybe this is something that will never go away. Maybe the excited about it when I've been doing it for 20 years you know or whatever, like he has.

MARK: So he was a good model for that?

SP3: Yeah. I think that's one thing we definitely have in common. I mean, the one thing we both really like it is when you get the raw data and you can mine it, find out that thing that nobody else knows. Whatever a weird thing that is, it just has a certain appeal to it that both of us share.

MARK: Do you feel that you like the idea of showing M1 that you did it, you wanted him to be proud?

SP3: Yeah. Yeah. Yeah. Yeah. I definitely have that kind of "second father figure" feeling about it. And it is equally devastating when he'd look at a first draft, and say, "No, this is really bad, this is really not it," and it was equally as devastating. So, it was. . . but I think I definitely have that same kind of sense, if he was saying good job, and I was feeling I was good, and I was happy with the approval. And if he was saying, "no way," that was a bad couple of days." You know, "oh, man," and then pick it back up and do it over again.

MARK: When he said, and possibly still does, when he says "No, this is not quite right," how does he do that?

SP3: Hummm. Actually, he says “No, that’s not it.” That’s actually pretty close to it. [M1] likes to see pretty much all of our documents; so, our comprehensives—and our orals is actually writing a review paper and handing that in—and the dissertation of course. And so we’ve done drafts of all of those pieces of work that he saw before we actually handed them in. And he goes through them, and marks them up, and he says, “No this isn’t it yet.” And sometimes it’s “This section is pretty good and close, but this section. . . you’ve just got to rewrite the whole section.

MARK: How come that doesn’t blow your ego?

SP3: Well, it depends on how bad the paper was, as to whether or not it did blow my ego out of the water (laughing).

MARK: Well, you’re still here, I mean you still like him, he’s still your mentor. How is it he can tell you that you not doing it right and it’s okay?

SP3: I think, umm. . . it’s hard for me to think about that as being something that [M1] did, or something that I actually thrived under. I had, I actually have a couple days of not wanting to work on it, and its blah; but then I usually kind of have a fighter attitude about that. If he said that that section was really bad, you really need to rewrite that, I kind of have this, “I can show him” kind of attitude that comes out, where I will find a lot of effort to put into like, that one section to try to. . . .

MARK: Show him, not in a negative sense, but show him I can do this, that I’m good enough to. . . the “good father” thing again.

SP3: Yeah. It is kind of that again. And I do think it’s always been seeking that kind of approval at some level. But also to show him that I can do it, that affirmation for me. One

of the things I've always struggled with is the changeover from writing as an English major, to writing in this technical manner. Which if you use an adjective. . . that's the first thing to go, in English, you're just going off, you know the creative writing, that was always my strong suit. And then to hit this was really tough for me, and it still is really tough for me to produce a document that stays within the bounds, and really doesn't sound like an English paper, as [M1] would say. And that was definitely a part of the learning process. But I also think the criticism didn't get to me about. . . I think being tough, you have a certain level of tough skin. Yeah, it's a bummer when don't get it right, but you have to figure out a way to get over that, then try again. When it's the third time, and it's still not right, that's when he gets to be hard. And I have to admit actually I didn't ever really find myself there very often; it was usually the third time, we were basically done at that point—and a couple times the third time was still not there. And I think that that also, just talking with other people, the fact that [M1] would be willing to pass back and forth the draft three times, was something that, as I've talked with other people, they didn't have that. And that goes back to the first thing, about being there and being willing to give up that time for you. I think the tough skin. . . it didn't feel good, but it wasn't totally devastating. But I don't know if there was anything about what [M1] did as compared to whether or not it was just that you had to. . .

MARK: And again, the idea that you could have an adviser—perhaps not you, but somebody else turns in a paper, and they say, "No, this isn't good." And then you have [M1] that turns back and says, "No, this is no good." On the one hand, it's okay. You get motivated and want to show him you can do it. Then the other person, for whatever

reason, hasn't got that relationship, and it's like, "Well, F you," or, "Oh, my god, I'm a failure." I mean, [M1] won the award, what is [M1] doing that's different? That's why it's hard to do this research, it's hard to find what it is that they're doing. . . . So many people seem to know this guy's a good mentor, whereas the other guy's not.

SP3: I think, and it goes back to that kind of level of excitement, at least for me it was about that [M1] always. . . I always knew I had good stuff. I had a good story to tell. But what I knew also was that I wasn't always the best at telling it, according to this kind of critical, this empirical way of writing things out. What I always felt was, I always felt motivated because [M1] always was very reinforcing; "You've got a good thing here to talk about." And the other thing was that was reinforced also by when we would go to conferences, people were really interested in what I was doing. And again, the whole time [M1] would be there. And the fact that others are interested in what I was doing, and I could talk with them and have good conversation about things, and the fact that [M1] was excited to be there for those conversations as well. And again, that was also the circle of approval other peers that are out there, as well as the approval of [M1] seeing that what I was doing actually was. . . for him it was probably what he already knew, but for me, it was like, "Yeah, you're right, this is important stuff. This is good stuff."

MARK: So he always invested energy and interest in what you were up to. . . .

SP3: Yeah. Yeah. Yeah. I think the other thing that [M1]. . . at least for me for sure, we always had a good. . . we always had kind of a separate relationship, as far as. . . there was the relationship where we were working on something, and then there was a separate relationship which was much more familiar and friend-like in a way that [M1] always

treated me more like a peer than like a student. So, it was always much more in that kind of sense, as far as, I worked in a lab for 5 years for him. And so there were kind of two levels there, as far as running and working in his lab, and it was much more about peer-type interaction, and a friend-type interaction. I think we had a pretty good relationship in that sense. We both knew that we could, when he had to be able to say to me, "This paper is not it, and you've got to go back and do more serious work on it," and that would be a little upsetting to me, and kind of bum me out a bit for couple of days. It didn't have anything to do with, it wasn't ever like, "F you," about it or whenever. I knew he was giving his honest opinion about what I had done, and it wasn't ever that I thought he was ever being mean about it or anything. It was a strictly that. . . I fully believed when he said I had to go back and do more work on this, that I really needed to go back and do more work on this. However much I didn't want to, or really just wanted to try to "hand it in and see if it passes, because I'm tired of writing on this thing," you know that kind of feeling? I think that [M1] and I, we had a period where I was the only one in the lab. We had a funding period, and then a year off, and then a funding period, and I came in on a year off, and we hired other staff around there. And during that time it was just him and I, and I think that's where we developed a pretty good relationship, and this kind of this dichotomy between, more of a personal level, and then the work level. I mean, it never felt like we didn't smoothly move between those, even when we were having it out. And the farther I got along, the more willing I was to argue about why I thought what I was doing was okay to hand in, and to really talk that through. And you know, were both a little stubborn, but again we can have a pretty heated talk about a paper, and try to discuss

why I didn't think that. I don't ever think that it was. . . again, it was still separate in some kind of strange way. And that I knew then if later on in the lab. . . we used to actually go for drinks on Friday a lot of the time, afterwards, and so if that happened on Thursday or even Friday, by the time Friday at 4:00 came, if we were going to go out, and just sit, it was completely different. And I guess the other thing was, I never thought that [M1] was being mean, I always thought that he was giving me, as he saw it. . . I didn't always see his, always agree; but in the same token, I always felt that what he said was probably best, and made the most. . . and made sense. It wasn't that it didn't make sense, ever, it wasn't ever that he suggested something that I really thought, "that doesn't. . .," and I have to admit, there's been other people, what their advisers told them, and thought, "that doesn't sound right." With [M1], I always thought that he was giving good advice. And that might be another piece of being a good mentor—he was always providing me with good information.

MARK: How does it feel to have a mentor that you believe in that way, giving you good advice? What does that get you?

SP3: I think it gets you to a certain level that you can relax about that, that you don't have to worry about whether or not you have to kind of double check the information. What I came to was, what I found was. . . actually, [M1] was in the human development department. He was the graduate curriculum adviser, so if you were a grad student, he was kind of where the buck stopped, before you had to go up the hill. What I found was that a lot of the time, friends of mine would get something from their adviser, and they weren't real sure about it, so they would end up having to go to [M1] to find out if. . . and

they would have to do it in some way where they really weren't getting their adviser in trouble with the department, and to try and find out, "Is that really the way I'm supposed to do this?" I always felt with [M1] that I never worried about that. It was always, what he, as far as logistics of things, I always knew he knew his stuff, and that that was not a problem. Of course, with his position, he knew his stuff. And then it was to know, that who he was, as far as a respected researcher in the field, who had been doing this for a long time, and had been showing his peers that he could do this, and is still being active in his research so he could be a part of that. When you weren't with somebody at the beginning or the end. . . again, from seeing other people, it can wear on you; it can be a different tale if you're with somebody who's just beginning and doesn't know how to handle the students, who doesn't know that basic information. It was a piece that you didn't have to worry about. And so, for me it was, like I said, it was just nice, to not have to have something else to be thinking about, or to worry about whether or not I had to go double check what my adviser was saying.

APPENDIX D
DISSATISFIED PROTÉGÉ (DP) INTERVIEW SAMPLE

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MARK: What does it feel like when you are with the mentor who provides positive feedback, for instance for your writing, and virtually no positive reinforcement for your other activities, like your family? What does that make you feel like?

DP 1: Well it's ah... not very good for building a relationship with a mentor. I don't feel like I've had a good relationship with my mentor outside of academics and professional life, and whether that's important or not I don't know. I think... I'm not sure how it made me feel—it was kind of an empty feeling. It made for a sterile relationship. I guess maybe that's one way to put it. But I can't really pinpoint exactly how it would make me feel when he would do that. Part of it was because I really wanted to get through the program, so I kind of started to see him as just "that person," the person who got me through the program, and that was his goal. I guess it wasn't really necessarily a bad feeling or anything, it was just that I don't think we had that kind of relationship that I've seen some people have with their mentors.

MARK: You said that you started to feel that way; you started to put him in that role. But at the beginning what were your expectations?

DP 1: Well, from seeing other graduate students, and with some of the relationships that I had with some of my professor in undergrad, actually, I kind of expected more of a combination of the professional and personal relationships. I didn't necessarily get that.

I mean, I still got my degree in a reasonable amount of time, but since I've graduated we don't talk that much. We don't even e-mail much at all. . .

MARK: Did you ever feel like a colleague?

DP 1: That's a good question. Sometimes I did, and sometimes I didn't. (long pause).

Yeah, when I was doing things that were not only getting me through the program, but were also going to help him out with his, in his professional life, I did. I felt like a colleague. And I don't know if that was because we tended to work more together and it was that kind of relationship.

MARK: Were you getting better feedback when you were serving his needs as well?

DP 1: Oh, yeah. Oh, yeah, definitely!

MARK: So if you were doing your own project and he wasn't interested in it. . .

DP 1: Yeah, and I don't know if it was because I realized that at the beginning, and so I didn't really seek his feedback on things that weren't really involved with him. Because I didn't. If I was working on a paper that didn't have to do with his area, then a lot of times I wouldn't even show it to him, I would just go to someone else.

MARK: I am curious. . . you obviously have some individual in mind when you use the word mentor. Why do you use the word mentor about that individual?

DP 1: Well, I think he did. I think he did; I think he mentored me in a specific area, and there was defiantly, I think, some mentoring going on there. And I learned a lot from him; And plus, that was his job, and so you know that's part of it too. He was my main advisor, and stayed that way through out my entire graduate school. Yeah, he did some mentoring, but then it was also the fact that was the label that he had.

MARK: Would you have given it to him if that weren't the label?

DP 1: Yeah, I would say he was a mentor.

MARK: So, what kind of things did he teach you?

DP 1: He taught me how to write, he definitely taught me how to write a whole lot better. He taught me how to do research; a particular type of research. (long pause) There's a lot of things with in those two areas, but those are the two big things—the writing, I can defiantly give him big kudos for that. Because he did do a good job on that.

MARK: What kinds of things didn't he do that you would have liked to see?

DP 1: The biggest thing that he didn't do, I felt. . . I don't think he was a good model for what an academic researcher should be. I don't know if it's an individual thing, or if it's because of the way the system is set up. . . he's got tenure, he teaches a huge undergraduate class, and that's his job in the department. There's really no contingency on him to go out and get funding to do new research and to write more and to do things. So, I didn't see a person who was an active researcher, an active writer. You know, when I was there, the major studies that he did were the things that I was doing. He might have done one other one, but that was pretty much it. Again, I don't know if that was because of him or if it was the system setup, so once you get tenured you pretty much have to kill someone to get fired. . . .

MARK: Do you think he really wasn't carrying his load. . . taking advantage of it. . . ?

DP 1: Yeah. Yeah, I would say so. Yeah. Especially when I first got here. When I first got here it was much worse than it is now. For some reason. . . I don't know if some one lit a fire under him or what, but the past few years he's been a little more proactive in

getting his own research going. I am in a post-doctoral program now and the mentor that I have there is pretty much the opposite. He is always writing grants, always doing new research—so really completely different professionally in that way. So, I think I didn't see through my graduate carrier what I think would be a good model of what an academic researcher should be.

MARK: Did he promote you in the field? Did he introduce you to other people? Did he take you to conferences?

DP 1: No. No. I would sign myself up for conferences. No, Yeah, No he did not do that. I think again it was because he was not really active in the field, and he didn't really have much of an opportunity to promote me, to give me connections to other people. And so I would go with other of his colleagues and get that. Yeah, he didn't do any of that.

MARK: If you took away the writing and the research, what did he do for you?

DP 1:(pause) Well, he taught me how to get through the program. You have to do specific things, obviously, in every graduate program, and a lot of people. . . it's a very self-motivating thing. You have to. . . there are certain dates that you have to do certain things, and it's somewhat unstructured. So, a lot of people have trouble with that, and I think he was really good and ah. . . and you know, showing me first of all, pointing that out to me and helping me get through that and doing the things I needed to do to get through the program. So, yeah, and you know, I said that, he helped me get through the program.

MARK: What did he do for you personally? Like as a person?

DP 1: Uh (pause) Nothing. Yeah, there was no personal. . . I mean we would tell jokes and stuff. But he and I, I think were different people too. Yeah, we're different people. I mean. . . you know, we went out a couple of times and we had a couple of drinks or something, you know. He's just a different person. He's been married a few times. (laughs) So, you know. . . and maybe that's part of the family thing. . . having bad experiences with that. No, there really wasn't anything personal.

MARK: What do you think about that? That he didn't do anything for you personally?

DP 1: Again, you know, I didn't come here to get a personal relationship with a facility member at KU, that wasn't one of my goals. It would be nice, and like I said, I've seen it in other graduate students, having personal relationships with other facility. So I got it in other places, so I . . . it would have been nice, but the fact that I didn't get it. . . (long pause) . . . it wasn't devastating. I don't necessarily. . . I don't find that to be as big as a problem as the fact that I don't think that he was a good model for what I think a professor should be doing.

MARK: You said that if you had a paper that wasn't really in his area you never even took it to him. Why is that? Where do you learn that that was a wasted effort?

DP 1: Because he would question why I was even writing this, and why I was spending my time doing that. Rather than go through all that business. . .

MARK: So the first time you did that, I don't know if you can remember the first time you did that, you go to him with the paper, and you have some level of excitement because you have this paper and you want so feedback from your mentor. You take in a paper and he says, "Why are you wasting your time on this?" How does that make you feel?

DP 1: Yeah, that hurts. That would hurt. Yeah, because. . . that's . . . you know. . . he obviously had a reason for doing that, and he would question it and you know. . . I would have a good dialogue about this, but it turned out just. . . I learned eventually that it really was just. . . because it wasn't really his area, and you know he would say that because "this isn't going to help you get through the program" and you know "this isn't going to get you to your goal. But, you know, I obviously have other goals other than getting through the program; I wanted to develop professionally. So yeah, that hurt. Because it would be nice to have someone who could be involved in all of that. If it was me, I think I probably would have. . . I probably would have just told. . . if I had a student, I would have just said, "Maybe you ought to go talk to so and so because this is his area. You know this is just great but I'm not familiar with it. So you might want to take it to somebody else". But rather than doing that he would just insinuate that it was kind of a waste of my time and I should be working on other things.

MARK: Did that impact your image of yourself as a competent researcher? Make you wonder if you picked the right program?

DP 1: (pause) I know it didn't in the later parts; I am trying to think in the early parts, when he first was doing that. . . I think I probably did initially. Yeah, yeah, I did initially and then . . . but then when I would figure out, "Well let me try with someone else." You know give the paper to someone else or discuss the research with someone else. Then eventually I just realized, it was just his own little personal hang-up and I just changed my behavior, and well this paper will not go to [mentor], it will go to somebody else.

MARK: So this guy was your chair, I'm assuming, your dissertation chair?

DP 1: Yeah, yeah..

MARK: And probably your master chair. Was there somebody else in particular that you went to most of the time for those kinds of emotional things?

DP 1: To talk about that?

MARK: Not necessarily to talk about him. . . I mean. . . you're married?

DP 1: Right.

MARK: So your probably getting a lot of emotional support at home. I'm making an assumption here.

DP 1: Yeah, you're right.

MARK: Was there somebody else in the department or somebody else around that you would go to get some professional emotional support.

DP 1: The students. Yeah, yeah. . . not necessarily other faculty; I wasn't comfortable talking about that with other faculty. I know some people do, and. . . no, I never did it with other faculty. But other students, yeah. . . yeah definitely, I'd talk to them about that.

MARK: About him?

DP 1: About. . . Yeah.

MARK: What about feelings of confidence? What about the idea that somebody on the inside thinks that you're OK?

DP 1: About confidence. . . ?

MARK: There's a lot of things that can go on in a relationship, and in the standard conceptual relation in a mentor relationship. . . you get not just the professional but the personal, emotional support that you've been alluding to. I'm just wondering if there was somebody else in the program that was giving you that support?

DP 1: Uh, ah, no

MARK: Because your peers of course can give you some support but they can't give you that kind of. . .

DP 1: Yeah. . . Yeah. . . Yeah. . . there was a couple of faculty. . . again, I wouldn't go to them and say, "He's doing this." It would just, yeah. . . well, yeah, it was the whole, "I'm not going to get the feedback or encouragement from you, so I'll go to one of these other people." And yeah. . . I'd defiantly do that.

MARK: Can I ask how old you are?

DP 1: I am 32.

MARK: So you're a little non traditional.

DP 1: Yeah

MARK: And you have a pretty stable home environment. Because one of the things I am seeing in you is that you have a lot of emotional resilience to start with, like you came in. . . probably more mature than your average 22-year-old master's student. I'm wondering, what you think would happen if some neophyte young person came in and met this guy?

DP 1: Well, I've seen a lot of them and I think I'm the only one who's made it out through him. No, I'm the second person who has made it out through him, with a PHD.

He's got a person who will be finished with their masters in a couple of weeks, who had some real problems. Yeah, I've seen a lot of students come and go within my ten year commitment. . . yeah, they just couldn't handle it. Yeah, it's always an individual thing. It may be the lack of a personal relationship; they've all been female except for one male.

MARK: Now is your program a PHD program or Master's or a terminal Master's.

DP 1: There is a terminal master's, and this one person is the only one that I have seen come through him, yeah, who ended on their master's.

MARK: Do you think that was their intent?

DP 1: No, that wasn't their intent.

MARK: Do you think that their decision was related to him? I don't how well you know the person.

DP 1: I know her very well. To some degree, yeah. I'm not real sure that she would have gone on with somebody else. It's hard to tell, because there are other things, too; that was defiantly a factor in there. Whether or not taking that factor out she would have gone on, I can't say for sure.

MARK: Because you obviously were able to find the resources, and have the emotional foundation that you didn't need. . .

DP 1: I think that finding other people. . . and a lot of those people. . . what happened is. . . I say a lot. . . one of the people who didn't make it actually went to another mentor and she did end up finishing. So, she just completely pulled herself away from him and went with someone else and did finish. The other people just didn't. . . didn't find anybody else. I don't know if the personal part of it made a difference there or not.

MARK: So, what does it mean to somebody, or to you, when somebody in that position of mentor or as a faculty member gives you positive feedback on something that you're doing. What does that give you at a real fundamental level?

DP 1: I think it helps build that collegial relationship. . . I feel more of a colleague when I'm writing with a mentor, or some other faculty and I get positive feedback. I mean, obviously it makes me feel good. It gives me a very good feeling about my competency as a writer and a researcher. I think it is very important, and I think some people are much better at it than others. You know it's interesting, as far as the writing, I think my mentor. . . and I'm not so sure that this was a bad way to do it, but, when I think about it, how he went about giving me feedback on my writing; in the beginning he was giving me a lot of positive feedback and really trying to shape my writing, and giving me corrective feedback too. But as it went on it was just less and less. Just less feedback period. And I always wondered if my writing had gotten better or. . . because he wasn't giving the positive feedback either. So I don't know if he just felt like I didn't need it anymore, or if it was . . .

MARK: Did you ever ask him?

DP 1: No (chuckles)

MARK: Why not?

DP 1: That's a good question. I think it was probably because of that relationship. I felt like that might be kind of going over that boundary that may have led to a lot of people not making it through with him. I think he is a very insecure person, and so when you call him on things he has a tendency to sometimes be really OK with it, and sometimes

really have a very adverse reaction. I just thought. . . well, you know, things are going OK (laughing) there's no reason to rock the boat. So I just went on, and I never asked him about that

MARK: Would it have been unsafe?

DP 1: No. . . you mean. . . like. . .

MARK: Emotionally?

DP 1: Emotionally . . . for me or for him?

MARK: For you.

DP 1: Yeah, it could have been. . . (long pause) Yeah, it could have been, because. . . again I've seen other people go down that path with him ,and it always turned out bad. . . for the person. And since he has tenure and you can complain to the department chair all you want. . . and threaten legal issues and everything. . . he's got tenure. . .

MARK: Did anybody ever do that, that you know of?

DP 1: You mean bring up. . .

MARK: Go to the dean? Go to the chair? Threaten issues?

DP 1: Oh, absolutely.

MARK: About his treatment of them?

DP 1: Yeah, yeah

MARK: So are you just being incredibly polite about this guy?

DP 1: You know, I have asked myself that a lot and people have asked me that because you know. . . the people that I know who had him in their life said, "Man, how did you make it through with him?" And you know, that's one way to look at it. . . but I was just

really nice with him (chuckling). I think, again, I just really wanted to get through the program, and I knew that if I did these things, I was going to get through it with him. . . And one of the other things is that he's one of the only people in the department who has similar interests with me. There are other people who have. . . who are interested in the things that we do, but that's not their main area of research. So, I could go to those people and talk to them, but as far as a main advisor, it pretty much had to be him. And so, that could have contributed to that, because I think I did probably put up with things a little bit more than other people did.

MARK: Cause you sound really relaxed now, and I'm wondering, are you kind of indifferent? I mean, have you reached the point. . . did you reach the point where it's like "What Ever!"

DP 1: Yeah. I think that's a good way to look at it. Yeah, I did. I can't pin point exactly when that was. I think once I found myself getting through the program and doing things and then little things would come up. . . you know, I would get the kind of feedback I was telling you about; "What are you writing this for? Why are you doing this research?" And I just decided I just didn't need to step over that boundary, so I didn't. So, I'd just go to someone else and find another avenue. By the end an indifference was probably a good way to put it because I really. . . the last couple of years I probably wasn't learning a whole lot from him. Once he taught me the writing which he did an excellent job of. . . (garbled) how to conduct his type of research, it was pretty much just, "We do this, we do that, we do this, then I'm done."

. . . .

APPENDIX E
EXAMPLE OF OPEN CODING

<p>....</p> <p>Mark: So I guess the opening question is typically, how do you define a good mentoring relationship?</p> <p>SP2: Well, I guess it's different for different fields. You know science, where you're doing research, there's a lot of information that you have to develop with experimental designs and stuff like that. And I think that part of a good mentoring relationship is kind of a back and forth with some of that information. The ability to ask questions, and get answers of course, and also kind of a little bit of freedom in developing your own hypothesis as a student, and developing the experimental design to go on with that, because that is really what's going to help you in the job world. But also, I think, and this is just me, you kind of need to have a relationship that's not strictly science based; you know, a little bit of a personal interaction. Knowing what's going on with each other, and be able to talk a little bit besides what's going on in the lab and what experiments are being done and things like that.</p>	<p>Interactive relationship about field.</p> <p>Ask and actually get answers.</p> <p>Freedom w/guidance, support.</p> <p>Practice, growth, developing autonomy-increasing trust.</p> <p>Preparation.</p> <p>Personal relationship.</p> <p>Time. Affirmation of value.</p> <p>Able to talk beyond advising.</p> <p>Research is not person.</p>
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<p>Mark: So lets imagine you're sitting with somebody and you're talking. You're the protégé and they're the mentor. You have a need for some information. This is what you're looking at; this is what you don't under stand. "Tell me what I need to know?" And they tell you what you need to know. Of course, you can get straight information from them, you can get an answer.</p> <p>SP2: Yeah, that's not strictly what I'm talking about though. Really, kind of more a pointing in the right direction. If there's just some small item, or some tiny little thing that you don't understand, then you can come to short answers; that's the best way to go and not waste a whole bunch of time digging through all the literature, looking for some tiny aspect. But if it's a general concept, you really do need to develop that yourself. And maybe take that to your mentor, as "This is what I understand, tell me if you think its right, or if you think maybe I'm missing something."</p> <p>Mark: So you don't want to be told the answer typically.</p> <p>SP2: No, no absolutely not. I don't want to be told the answer. I don't want to be told what to do. I want to have some freedom and ability to develop my own understanding.</p>	<p>Guidance, not directive.</p> <p>Point, not carry.</p> <p>M not obsessed w/irrelevant detail. M not cover ignorance?</p> <p>Learn diff. b/n learning and wasting time.</p> <p>Learn to learn important stuff.</p> <p>Safe place to be wrong.</p> <p>Trust, respect M's knowledge, skills, responsiveness.</p> <p>Wants M to know P can do it?</p> <p>Desire to learn, not just pass.</p> <p>Wants freedom and guidance.</p>
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<p>Mark: Why is that?</p> <p>SP2: Because that's what you have to do in the real world. And that's probably what interests me. . . is the ability to develop, and you know, stick through, and all of a sudden that moment when it becomes clear is a lot of fun, and it's very interesting. I don't want someone just drawing me a picture and telling me, "This is what happens, just memorize it."</p> <p>Mark: So, what I'm trying to find out is why that works for you? Why does it work for you, not to be told the answer? What is it that you're getting? So you're saying its more exciting to get the answer yourself?</p> <p>SP2: Yeah, it's more exciting. And its more applicable, because if I go out and get a job, then I'm not going to have someone I can go to. . . I shouldn't have someone there I can go to. . . at the PhD level, I shouldn't have someone I can just go to and say, "what is the answer to this?" That's part of what science is about, finding the answer. It's not just finding answers that no one has found before, but understanding and finding some of the answers in the literature, and doing your own reading.</p> <p>Mark: Do you think that all protégés think in the same way</p>	<p>Develop, grow, learn on own.</p> <p>Preparation, relevant to goals.</p> <p>Likes learning, winning against own ignorance.</p> <p>Growth. Discovery is reward.</p> <p>Fun.</p> <p>Respect her abilities.</p> <p>Teach her, don't tell her.</p> <p>Discovery, overcoming is rewarding. It also prepares for goals. Relevant growth.</p> <p>Wants to become a real PhD.</p> <p>Belonging.</p> <p>Wants to participate in real science—not about fame, but understanding, discovery, overcoming, work. To be a scientist. To Belong.</p>
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as you?

SP2: Well, I don't know about all, I would hope so.

Mark: In your experience?

SP2: In my experience, yes. I would hope so. It's important to have a little bit of free thought. Free thought, and different ideas, and different experiences, kind of what helps make the field progress. If everybody's thinking the same thing, or if you're not going to have any more ideas then what your mentor has, then you're not really pushing the envelope at all, you're just kind of following along.

Mark: So how does [your mentor] do that?

SP2: Well, my experience with her has been that, I knew a lot about the Alzheimer's disease field coming in. I didn't know quite as much about the neurochemistry, and anatomy, but I got that in classes and things. She really has let me come up with my own experiments to do. In the beginning of course I was just learning techniques and basically doing experiments that were assigned, and then after a while, after I got a little bit more involved, she really let me kind of take things in my own direction. From doing my own reading in the literature, and what I understood about Alzheimer's disease and other things, I've been able

These things SHOULD be universal.

Free to explore ideas. Safe.

Belonging. Growth.

Experiences.

Going beyond what's gone before. Master, then transcend.

Independence, autonomy.

Ability, desire to surpass M.

Respect; want it, give it.

Confidence in own abilities.

Goals.

Don't need to have everything.

Don't need M for basic knowledge. Freedom equals respect. First learn basics, then get autonomy and respect.

Stages; skills development.

Respect of her ability. Show

<p>to develop my own set of experiments and my own hypotheses, and kind of my own little project, which has been very helpful, cause it also allows me to do the kind of thinking to understand, that "Okay, I need to have some controls for this aspect of it," or "Does this experiment really answer the question that I want to answer?" And that's what you have to do in the real world, and that's one of the most interesting aspects of doing scientific research.</p> <p>Mark: You alluded to how it was different at the beginning.</p> <p>SP2: Well, when I first came into the lab, I had no experience doing any kind of techniques, and that's kind of what I was learning when I first came in. She would say, "Okay, this experiment, we need to have this project run, and because you need to learn how to do this experiment, do this technique basically, why don't you do this?" Even then, it wasn't, like, you know, very strict, as far as, exactly, you know. . . I still had to understand enough about it to say, "Well I need to control for this, and I need to test for this and this." But it was. . . basically, when I first got into the lab for the first couple of months, I was just trying to learn the techniques, and so I was working with some of the other</p>	<p>M ability. M reciprocates w/freedom. Use the freedom. Safe to explore own ideas. Self-development. Practice thinking. Growth in skills, confidence. Autonomy, can do the do. Internalized research values. Progress towards goals. Preparation, fun.</p> <p>Neophyte, novice. Phases. Guidance. Developmentally appropriate. M assessed skills, needs. Use the word "we"-collective, not ego. Not command language. Guidance with freedom. Positive expectations, rope.</p> <p>Start at the bottom. Work</p>
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<p>people in the lab on some of their own stuff, but, you know, you can't just jump in there and know how to do everything.</p> <p>Mark: Did you make any mistakes?</p> <p>SP2: Of course.</p> <p>Mark: And how was that?</p> <p>SP2: Oh it was fine, I mean, she understands that you...of course this is a training period, even now. I've made mistakes, or not controlled the data for something, and when I present the data to her she mentions that, so the next time I do the experiment I realize that I need to do that. But it's not that. . . she doesn't go rooting for it. She's really relaxed about it, and about a lot of things.</p> <p>Mark: What did that, what does that get for you? When you're in a situation, and you make a mistake and she's okay with it, she doesn't . . .</p> <p>SP2: Well, I mean, of course it makes me more willing to admit that I made a mistake. And also, it's not so much pressure. I know some mentors who are a lot more ridged about that, and they do expect you to know, every time, exactly everything that needs to be done. And you know, you're going to have people in the lab who are going to be scared when you do that. And I think it makes it easier for</p>	<p>Peer mentors, trainers.</p> <p>Completely not threatened</p> <p>Secure, confident.</p> <p>M understands, vs. tolerates, errors, ignorance.</p> <p>Mentions, points out – not points finger.</p> <p>Doesn't look for things to attack, ways to lord over protégé.</p> <p>Safe base. Self-comfort. No need to evade or avoid M.</p> <p>Lower stress, focus on work.</p> <p>Fear of M, afraid to tell M when make mistake. Afraid to try anything for fear of error and punishment.</p>
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<p>me to just go ahead and do something, than to worry about if everything is exactly right. I do make an effort to include everything I understand, based on my own knowledge, to do everything correctly. But if it's not correct, I don't feel like I have to fear anything.</p> <p>Mark: You feel comfortable coming up with, doing more risky type things, a more far out hypothesis?</p> <p>SP2: Oh absolutely. I don't know if you know how we do our oral examinations. . . ?</p> <p>Mark: She told me, yes.</p> <p>SP2: We do a lot of proposals, so I just wrote my grant proposal, and it's kind of out there. They're going to let me do it. Its not so far out there, I guess, that it's unreasonable. . . .</p>	<p>Can focus on work rather than possible judgment – safe, secure. Desire to do well is internally driven, not a desire to avoid external aversiveness.</p> <p>Safe.</p> <p>Can take risks, safe. Can explore ideas.</p> <p>Safe to be different, push the envelope. M supports in committee? – note use of “they’re.”</p>
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The foregoing is a rough example of the first iteration of an open coding process. The actual process was carried out with pencil on an original transcript. The second iteration was carried out when concepts were further reduced and transferred to note cards.

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BIOGRAPHICAL SKETCH

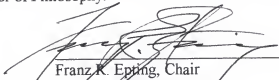
Mark Brechtel was born in 1957 in Calgary, Canada. His father was a senior executive in the oil industry and later an independent consultant. His mother, who began as a schoolteacher, has been an exemplary mother, wife, and homemaker. He is the youngest of four siblings, having two brothers and one sister.

Mark finished grade 9 before becoming disenchanted with school and decided to pursue other interests as a teenager. He obtained employment in the budding electronics industry, worked as an electronics and computer technician, and later as a manager in a computer company for approximately 15 years. For 8 years, he and his second wife, Brenda, were therapeutic/medical foster parents, helping to raise 30 children, including two daughters from his previous marriage and one daughter from her previous marriage.

In 1993, Mark again became disenchanted and returned to school. He received a national award for the highest scores on the GED and entered the University of Colorado. With a GPA of 4.0, he earned a Bachelor of Arts degree in psychology, with a minor in philosophy. He was subsequently awarded the J. Hillis Miller Presidential Fellowship and later a McLaughlin Dissertation Fellowship by the University of Florida. He is presently completing an APA accredited doctoral internship at the University of Kansas Counseling Center and has accepted a postdoctoral fellowship at the University of Georgia Counseling Center.

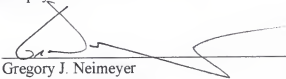
Mark does not yet know what he wants to be when he grows up, nor has he any immediate plans to do so.

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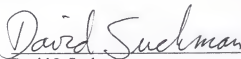
Franz R. Epping, Chair
Professor of Psychology

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Gregory J. Neimeyer
Professor of Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree Doctor of Philosophy.



David I. Suchman
Professor of Psychology

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Kenneth J. Gerhardt
Professor of Communication Sciences and
Disorders

This dissertation was submitted to the Graduate Faculty of the Department of Psychology in the College of Liberal Arts and Sciences and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

August, 2003

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